ANUARY
1935

The Educational Record

PUBLISHED BY
THE AMERICAN COUNCIL ON EDUCATION
744 JACKSON PLACE
WASHINGTON, D.C.

The Educational Record

Published Quarterly by

The American Council on Education

Volume 16 January, 1935 No. 1

Editor:

GEORGE F. ZOOK

CONTENTS

The Educational Program in the Civilian Conservation Corps During the Third Enrollment Period
C. S. Marsh

The College Guarantees Satisfaction
W. H. Cowley

Real and Imaginary Dangers in the Testing Movement
Herbert E. Hawkes

Problems of an Admissions Office
Alan Valentine

Accreditation of Secondary Schools in the Light of the North Central Association Report
George F. Zook

The College Physics Testing Program and Its Significance for Guidance in Secondary Schools
Frederic Palmer, Jr.

The Effect of Systematic Testing on Pupil and Teacher
Sydney V. Rowland

The Purposes of the Eight-Year Experimental Study
Wilford M. Aikin

Evaluation: A Challenge and an Opportunity to Progressive Education
Ralph W. Tyler

Training Teachers for Guidance
Eugene A. Colligan

COPYRIGHT, 1935
AMERICAN COUNCIL ON EDUCATION

Annual Subscription, $2.00

Entered as second-class matter June 8, 1932, at the Post Office at Washington, D. C., under the Act of August 24, 1912

General Direct

The Educational Program in the Civilian Conservation Corps During the Third Enrollment Period

(April 1–September 30, 1934)

THE Educational Program now being conducted in the camps of the Civilian Conservation Corps is a great American folk school movement. These are some characteristics of the folk school. It is an educational enterprise for adults and older youths growing out of the native culture of a people. Moreover, it is an enterprise that develops and expands that culture by teaching the people more about the things that are of most interest or importance to them. It is not imposed from above; it does not prescribe an individual's curriculum; it meets the immediate needs and interests of the people. In the folk school one group may be studying their social and economic problems, another their vocational problems, another may be satisfying their yearning for self-expression. Accept this definition or its equivalent, and the Educational Program now going on in the CCC Camps meets the same need as the folk school has met in other countries. Yet it is an attempt to meet distinctly American need in a distinctly American way.

Education in America is in a state of self-examination. The last decade has witnessed intensive studies of the aims and the methods of many fields of professional training, of the Liberal Arts College, and of the lower schools. Complacency is largely gone. Time-honored curricula are under searching scrutiny to see if imputed values for the individual are really there. The individual is the center of interest; our grave concern is the development of his powers and his individuality.

Happily the educational philosophy underlying the CCC Educational Program is in full consonance with this current

movement. Our objectives, as stated in the Handbook for CCC Camp Educational Advisers (page 3), are as follows:

"1. To develop in each man his powers of self-expression, self-entertainment, and self-culture.

"2. To develop pride and satisfaction in cooperative endeavor.

"3. To develop as far as practicable an understanding of the prevailing social and economic conditions, to the end that each man may cooperate intelligently in improving these conditions.

"4. To preserve and strengthen good habits of health and of mental development.

"5. By such vocational training as is feasible, but particularly by vocational counseling and adjustment activities, to assist each man better to meet his employment problems when he leaves camp.

"6. To develop an appreciation of nature and of country life."

Further, the Handbook says to Camp Advisers (page 4, paragraph 6):

"The activities you carry on must grow out of the needs and wishes of the men. There is no program planned outside the camp and imposed from above. The program must be worked out for each camp separately. Individual counseling, guidance, and stimulation are the keys to the selection of materials. Informal study, reading, and discussion will characterize the methods probably used most largely. Do not rely too much upon class instruction as usually carried on in school or college."

No curriculum is prescribed; specific methods are not mandated. Here is the essence of the modern philosophy of adult education, and of the folk school idea; namely, that not only the individual shall be fitted to live in his own world, but that his *immediate* needs and interests shall be made the dominant concern. In a voluntary enterprise, not what he *should* study, in the opinion of another, but what he *wants* to study *right now* is the cardinal consideration. Indeed, wide experience in adult education shows very clearly that if the adult's interest is caught and held he can be shown that, to do well what he

has in mind, he must supplement his immediate study interest by supporting materials. He comes therefore in the end willingly, and often eagerly, to take up those fundamentals which he at first refused, and which no compulsions could have enforced.

And so the CCC Educational Program, based on a sound philosophy of adult education, offers to enrollees in each camp, as far as possible, the opportunity to study those things that their interests demand. By so doing it not only serves enrollees effectively but it continues to elicit strong commendation from adult education leaders and many others, in all quarters of America.

The CCC Camps are operated by the United States Army. When the first camps were set up in the spring of 1933, the War Department promptly saw the need of an educational program and organized one. Before long it became obvious that the officers in charge of camps were so heavily burdened with other duties that they could not well conduct the kind of diversified adult education programs needed in the camps. The present educational plan approved by President Roosevelt, by Mr. Robert Fechner, the Director of Emergency Conservation Work, by Dr. George F. Zook, who was then United States Commissioner of Education, by the War Department, and other government officials, provides that the United States Office of Education shall select and appoint the teaching personnel and shall serve the War Department in an advisory capacity on educational policies, materials, and procedures. All who are concerned realize that effective rehabilitation of men in camps demands not only that they be fed and clothed and given work to do, but also that in their spare time they be given the utmost opportunity to learn about the world in which they live and their relation to it.

Originally, it was contemplated that each camp should have a Camp Educational Adviser; unfortunately, however, budget reductions made it impossible to carry out that plan. The present ratio is approximately three advisers to four camps. Under the direction of the Camp Commander, the Educa-

tional Adviser has general supervision of the educational activities in the camp, develops an Educational Program suited to the needs and interests of the men, arranges for necessary supplies, etc. In each camp an enrollee is selected to assist in carrying on the Educational Program and is given $6 a month extra pay.

Enrollees work eight hours a day five days a week. The Educational Program is conducted in evening hours and at other times which do not interfere with work projects. This educational opportunity is offered to enrollees; it is not mandatory. Camp Commanders, however, encourage enrollees to take advantage of it.

At the time the Educational Program was approved, there were 1,468 CCC Camps. Last summer, when a number of additional Drouth Relief Camps were established, the Office of Education promptly recommended extension of the Educational Program to those camps, but the recommendation was disapproved.

The CCC Educational Director was appointed December 29, 1933. The nine Corps Area Educational Advisers were appointed in January, 1934, and from then on through the spring, Camp Educational Advisers were selected and sent to camps as rapidly as possible.

Since the work jobs of those camps lie mostly in the forests and parks, the camps are largely in the woods. Picture this set-up: At the head of a company street perhaps two blocks long is the camp headquarters building, housing the camp offices; near-by is a small camp hospital building; along one side of the company street is the camp mess hall, a long, low building; and beyond that the recreation hall. Beyond that is apt to be a boxing ring, together with a baseball diamond, and other recreational facilities. Across the company street from the mess hall and the recreation hall are four long, low barracks buildings at right angles to the street. Some camps have put up small buildings or tents in which classes may be held, but, by and large, there are no special facilities of that sort. Discussion groups and classes meet in the mess hall,

in partitioned corners of the recreation hall, in the offices of the Company Commander and the Educational Adviser, in a corner of the barracks; in fact, anywhere that men can sit down and talk. A few camps, to be sure, do have what they call a camp schoolhouse. There is one such out in Idaho, constructed out of lumber from an abandoned sawmill which the Camp Commander bought for ten dollars out of company funds. Under the direction of the Camp Educational Adviser the men of the camp built this schoolhouse about 40 feet by 20 in size. From some source they secured an old bell which, mounted in the cupola, is proudly rung to call men to class. It is significant that a schoolhouse is in that camp. It is more significant that the men wanted it so much that they built it in their own spare time.

To repeat, the camps are operated by the War Department. With no commensurate increase in staff, the United States Army assumes this burden in addition to its ordinary duties. Camp or Company Commanders are largely reserve officers, but the Corps Areas' staff and the several district staffs within a Corps Area are regular army officers. The camps have no military drill, no guardhouses; they have the orderly procedures of a well-administered high school or Boy Scout Camp. The story of the War Department's highly successful operation of these Civilian Conservation Corps Camps, when adequately written, will bring great credit to the United States Army.

The War Department divides this country into nine Corps Areas, each of which is under the command of a Major General. At each of these Corps Area Headquarters, a Corps Area Educational Adviser, chosen by the Office of Education, serves in a dual capacity; on the one hand he is the Commanding General's staff adviser on educational matters, and on the other hand, he is the supervisor of the work of the Camp Educational Advisers within the area. He trained the advisers in conferences before they went to their camps, and he continues to meet them in district conferences at frequent intervals. He visits them in their camps and observes their work

on the job. He sends to each a monthly bulletin containing helpful suggestions. He assists in the selection of text material. He is their counselor and adviser. He recommends the discharge of those who are inefficient, and the appointment of all replacements in his Area.

At the beginning of the Third Enrollment Period,* April 1, 1934, 631 advisers had been appointed, or not quite two-thirds of the authorized quota. Additions in April brought the total to 1,001, in May to 1,058, and in June to 1,087, the full quota. Therefore, it was not until the month of July, or halfway through the third enrollment period, that the Educational Program was operating with the full staff that had been authorized. The Office of Education completed its recommendations for appointment of all Camp Advisers in the month of February; delays in actual appointment arose out of conditions over which this office had no control.

During the third enrollment period, the Corps Area Educational Supervisors spent 44 per cent of their time in the field visiting camps, holding conferences, and conferring with army officers and educational leaders concerning the conduct of the Educational Program. They visited 809 camps and held 423 conferences of Camp Advisers. This field work enables the Corps Area Educational Supervisors to keep in close touch with the practical problems of the work.

Yet, in spite of the time devoted to field work, the Corps Area Educational Supervisors have found it impossible to satisfy the demands of supervision. To make up that deficiency they have drafted exceptionally well-qualified Camp Advisers to serve as District Educational Advisers. These men, in addition to their regular camp duties, help to oversee the work of other advisers in the district, suggest changes, and work with the Corps Area Educational Supervisor. This informal machinery has done a great deal to relieve the Corps Area Educational Supervisor of an almost impossible burden and to knit together more closely the entire teaching personnel.

*A man enrolls in the CCC for a six-month period, with the privilege of reenrollment for an additional period.

One of the most important duties of the Corps Area Educational Supervisor is the recommendation to the Office of Education of men well qualified to become Camp Advisers. A Corps Area Educational Supervisor recently wrote, "In an attempt to raise the standard of Educational Advisers in this area, I have spent a good portion of my time interviewing nearly 1,000 applicants for positions in the CCC Camps." This procedure has proved exceedingly successful in securing men of the highest caliber to serve in the CCC Educational Program. During the third period, 594 advisers resigned or were relieved; they were replaced by men hand picked by the Corps Area Educational Supervisors.

In Camp Advisers there has been a rather large turnover, partly because some of the best qualified men got better jobs in schools and elsewhere toward the end of the third enrollment period, and partly because many of the less able were asked to resign. The specifications for successful Camp Advisers demand men of unusual abilities. At of the end of the third enrollment period, a total of 1,667 advisers had been appointed, although the quota was 1,092. In other words, of every three men chosen and tried, two remained on the job.

In the CCC Educational Program the Camp Educational Adviser is all-important. He must have the imagination and ingenuity to build up the camp program. Upon him falls the burden of making the educational offering attractive to the enrollees. He must be an effective organizer within the camp, always keeping not only the approval but the active interest of his Camp Commander. He must interpret his program to near-by communities and draw out of them the assistance of libraries, clubs, schools, and churches.

Of the 1,092 Camp Advisers in service at the end of September, 92 per cent have bachelor's degrees, and many of the rest have teacher's certificates. One-third of the advisers have master's degrees; 4 per cent have Ph.D. degrees; 78 per cent of them have had teaching experience, and 32 per cent have had experience in school administration. Men from 25 to 45 years of age do the best work; more than half of the

present staff are under 35 years of age. Younger men adapt themselves more easily to the conditions of camp life.

Very careful consideration was given to the selection of Negro Camp Educational Advisers for Negro companies. Leading Negro educators were asked to recommend men whom they felt to be well qualified for these positions. Twenty-one Negro Advisers were chosen from the names submitted. Five of them have Master of Arts degrees, and eight others have done graduate work beyond the Bachelor's degree. All but three have had teaching experience, and most of them have done specialized work in guidance and counselling.

One enrollee in each camp serves as assistant to the Camp Educational Adviser. These assistants for education have given effective service in improving library facilities and operations, keeping educational records, and in conducting classes. Many of these assistants are exceptionally well qualified by training and experience for such work.

Over 6,000 persons are serving the CCC Educational Program as part-time teachers. This number brings the teaching staff to almost 9,000. The enthusiastic cooperation of these part-time teachers is a striking feature of this new type of education. Among those who are whole-heartedly offering their services regularly are camp officers, work superintendents and foremen, teachers from near-by schools and colleges, teachers supplied by state emergency organizations, and enrollees themselves. The results of such an outpouring of cooperative endeavor are incalculable.

Because the aptitude and interest of enrollees, the facilities for instruction, and the educational and vocational needs vary in the nine Corps Areas, and even in the 1,468 camps, all Corps Area Educational Supervisors perform the function of appraising and selecting textbooks and other educational materials which are used in the camps. Recognizing the variety of needs and interests from camp to camp, the Corps Area Educational Supervisors follow the recommendations of Camp Advisers in so far as those suggestions are practicable and coincide with the philosophy of CCC education. Some of the

Corps Area Educational Supervisors have fostered efforts to prepare special study materials for use in their areas.

During the third enrollment period, the Educational Director made visits to all but one of the Corps Area Headquarters. The commanding generals of the Corps Areas, together with the members of their staffs, gave abundant evidence of their interest in the CCC Educational Program. In district conferences of Camp Commanders and Camp Educational Advisers, this interest was again expressed in a variety of ways, and there was plentiful evidence of not only a growing comprehension of the purpose of the Educational Program, but an ingenious and effective cooperation in practical ways to make the program successful.

It is to the lasting credit of the United States Army that in all the dealings of the Office of Education with the War Department in Washington, in the daily supervisory activities of the Corps Area Educational Supervisors at Corps Area Headquarters, and in the multiplied activities of the Camp Educational Advisers working with the Camp Commanders, there have been no really significant examples of lack of mutual trust or lack of effective cooperation. That the United States Army could take into its organization approximately 1,100 full-time civilians, and that it could integrate the work of these civilians with the varied and taxing administrative procedures at Corps Area Headquarters, and with the established routines in camps, are facts of utmost significance in showing the high caliber of the officers in the United States Army.

The men in the camps teach each other. Their diversified training and experience previous to enrollment make them potential teachers of their own trade or profession. Enrollees from foreign-speaking homes are teaching classes of German, French, and Spanish. College graduates are persuaded to teach mathematics, surveying, and other subjects in which they have specialized in college. Skilled artisans, given an opportunity to express themselves, renew interest in their trade and, in turn, instruct others. The student-teacher participation is invaluable in reestablishing a zest for the particular vocation which had seemed useless.

We in the Office of Education think the more informal the program the better it is. The aim of the program to satisfy needs of the enrollees is expressed in this quotation from Mr. Thomas Nelson, Second Corps Area Educational Supervisor:

"It is logical that those in charge should seek to emphasize those activities which deal with the outstanding needs of enrollees. This is best accomplished, however, by awakening interest in the *needs* so far as possible, through programs appealing to *present interests*. The *unity* of the program is to be obtained through emphasis on selected objectives and outcomes, and through properly directed instruction processes rather than through *uniformity* of subject matter or uniform activities."

Participation is wholly voluntary on the part of the enrollees. Whatever the men want to study determines the program of the various camps. Hence the list of courses offered runs the entire gamut from the elementary school to the college and the vocational school. The interests of the enrollees, expressed by their enrollment in classes or groups for sustained study, fall into these several fields:

1. *Vocational subjects:* This group includes those subjects which are designed to give vocational skills, either in the work with which a man is familiar, or a new line of work.
2. *Fundamental subjects:* These courses are for illiterates, and for those whose education is of elementary school grade or below.
3. *Academic subjects:* This group includes those subjects common to the high school or college curriculum, such as English, History, Civics, etc.
4. *Self-expression subjects:* Here are grouped all so-called "leisure-time" subjects, especially those which are not strictly vocational or academic.

Though safety classes were a part of the Educational Program in many camps, the appointment of a safety engineer by the Director of Emergency Conservation Work gave a definite impetus to the safety program and was the means of effecting complete cooperation between the three services, army, technical, and medical, responsible for the safety and welfare of the men.

During the third enrollment period, 18,214 courses were offered in 1,468 camps of the Civilian Conservation Corps. The average number of courses conducted in a company at one time was ten, each of which met an average of twice a week with an attendance of fourteen enrollees in each meeting.

Classified by nature of subject matter these courses may be grouped as follows:

Vocational courses	31 per cent
Academic courses	57 per cent
General courses	12 per cent

The so-called academic courses are divided as follows: Approximately 20 per cent are at the elementary school level, 30 per cent at the high school level, 7 per cent at the college level; the vocational courses (31 per cent) are mostly at the trade high school level, and the remainder, such as dramatics, music, current events, hobbies, etc., are difficult to classify.

The Educational Program benefitted greatly by aid from public schools and universities. Some state universities, notably Nebraska and Wisconsin, have made special arrangements and reduced fees in correspondence courses for enrollees. In the spring and autumn 9,119 enrollees attended night school in near-by communities, and 5,465 were enrolled in correspondence courses.

Probably the most important single function of the Camp Adviser is the work he does with individual enrollees. His duty is to counsel with the young men in the fields of health, education, personality, adjustment, and vocations. By these and many other daily personal contacts, the Camp Advisers are rendering a great service: they enable the young men to find themselves. They are heartening enrollees by showing them the opportunities for a more abundant and useful life, both in camp and at home after discharge. Camp Advisers average about 79 such interviews per month in each camp. An estimated total of 672,675 such personal interviews were reported during the third enrollment period.

Much of the work of the Camp Educational Advisers affects every man in the camp. The organization of the camp libra-

ries and the stimulation of book circulation and magazine reading has been an effective activity. Books were catalogued, arranged systematically, and placed where the enrollees could make their own selections. Libraries were increased many times in size and range. Contributions came from neighboring towns, and, more important, cooperation came from town, school, state, and university libraries and library services. These agencies have worked in every state to make available the books desired by the Camp Adviser and enrollees. Over 65,000 enrollees were carrying on systematic reading courses under supervision in the one month of September. Total book circulation to enrollees in the third enrollment period came to 1,427,977.

There is much of teaching on the job in connection with the day's work. Many of the foremen who are trained engineers are so directing the day's work that enrollees are developing certain skills. After camp experience, many men are employable in lines of work which had been utterly new to them before enrollment. The Camp Educational Adviser in one camp gathers the foremen together one night a week for a seminar in best methods of teaching on the job. In a camp of the Second Corps Area, the adviser and the foremen each day plan together the "education on the job," the work details stopping for 15 minutes in the forenoon and afternoon for instruction by the foremen. On this subject Mr. John B. Griffing, Ninth Corps Area Educational Supervisor, says:

"The success and growth of the job training work may be measured by the fact that during June there were 11,162 enrollees of the Ninth Corps Area receiving systematic instruction while at work, and 23,624 in July."

It is difficult to estimate the importance of this "training on the job" phase of the Educational Program. There are countless examples of enrollees whose ability to get jobs after leaving camp was directly dependent on the knowledge and skill gained through the instructions given them in connection with their camp day's work. One case was recently cited of a man who learned surveying "on the job" and left to take a

position as an instrument man with the U. S. Coast and Geodetic Survey. A considerable number of tractor drivers, truck drivers, and cooks have been able to get jobs upon completion of their term of enrollment in the CCC on the basis of skills taught them in camp.

One of the outstanding features of this CCC Educational Program is the extended activity in informal fields, such as hobbies, dramatics, reading, discussion groups, and camp newspapers. The courses of instruction themselves are not formalized in method or material. The men meet together, voluntarily, in their interest to learn or to do something creative. The camp newspaper is one of the best examples of this informal activity. About 600 CCC camp newspapers are being regularly printed. The enrollees take great pride in the product of their combined effort. The results justify that pride; the content of these papers shows a breadth of interest in the vital community and national problems; the make-up indicates originality in thought; the exchange of news sheets increases the sense of CCC solidarity; and the boys are learning the basic principles of practical journalism.

For its carry-over value the hobby-craft phase of the Educational Program is very important. For the Fourth Corps Area, Mr. C. A. Edson, the Educational Supervisor, reports:

"The hobby crafts have proved of great interest wherever leadership was available, and effort is being made to introduce at least one craft into each camp. Among the crafts being developed are rustic furniture making, wood working, wood carving, metal work, hammered metal work, archery, model boat building, model airplane making, linoleum block carving, square knotting work, Indian bead work, and basketry. Several of these crafts have vocational implications, and many of the men participating in them are making or will make them sources of income. Thus one boy in a District Supply Company has built up an income of $8 to $10 a week by making bread knives in his spare time, out of scrap metal."

The men enrolled in the Civilian Conservation Corps come from all parts of the country, from east, west, north, and south, from city and from country, from mountain and plain

and seaboard. In an effort to appraise the background and needs of these men the Office of Education prepared a form called Personnel Record of Enrollee. These records, filled in by the Camp Adviser upon consultation with the enrollee, give basic information concerning occupational and educational background, vocational and avocational interests, and the educational progress of the man in camp. A careful study of these records will reveal a great deal about the type of education and training of most value to enrollees in the CCC.

An analysis of the previous schooling of approximately 183,000 enrollees shows that one-half of 1 per cent had had no schooling. Approximately 50 per cent had not gone beyond the grammar school, and about half of the 50 per cent had not graduated from the elementary school. Forty-six per cent had been in high school and approximately one-third of those had graduated. Three and one-fifth per cent had been in college, with the one-fifth per cent graduating. Many hundreds who have had but one, two or three years of school work are functionally illiterate. This wide range of previous schooling is one explanation of the need for variety and flexibility in the CCC Educational Program.

The results of the Educational Program in the third enrollment period, gratifying as they are, were limited, and the efforts of Educational Advisers were hindered by a number of entirely unavoidable factors. The summer months themselves, with their long evenings and the competing attractions of hiking, swimming, baseball and other sports, are not conducive to study. Summer days are not naturally school days. But there were additional and greater obstacles to overcome. In the months of April, July and September there was a very large turnover in the enrollment of the camps: at each of those three periods 100,000 men were discharged from the CCC, and 100,000 new men were enrolled. The personnel had almost completely changed in six months.

In the second place, there was a great migration of camps from their winter locations to new project sites for summer work. Many camps, especially in the Eighth and Ninth Corps

Areas, moved into temporary quarters in the mountains. The time and work entailed in this general movement almost entirely disrupted what educational activities had been started. Moreover, many of the summer camps were inadequately equipped with lights and other facilities necessary to an educational program. In the mountains, especially, camps were frequently located in almost inaccessible sites, far removed from any communities with educational agencies. The situation was aggravated by the subdivision of companies into "spike" or "side" camps. These factors, although entirely necessary for the important project work of the CCC, made any concentrated educational effort very difficult.

In the third place, an unusually large number of forest fires kept company after company on the fire front, breaking up entirely the normal tenor of camp life. Continuous instructional efforts were impossible under such conditions. These difficulties which so affected the summer Educational Program will be much alleviated during the winter.

What did the Educational Program accomplish in the third period? That is a pertinent question—difficult to answer completely. What does a high school or a college accomplish in three to six months? Not much that is tangible. And yet we are convinced that the sustained effort of the individual to improve himself is worth while, that the repetitive exercises of the classroom develop the mind, and that in due time new skills can be acquired.

The total number of enrollees who voluntarily and regularly carried on systematic study in the third enrollment period, individually or in groups, was 133,156. This number includes only those who carried on extended study. Many others participated in general phases of the program or in spasmodic work. Any adult education plan in a city that could enroll such proportion of the eligible population, approximately one-third, would be news in the educational journals of the country.

Since the CCC Educational Program is built around the needs and desires of the individual enrollees, the success of the program can best be determined by the benefits derived by

the students themselves. Perhaps the most dramatic examples are those of illiterates who learn to read and write. During the summer months 2,479 enrollees in the Civilian Conservation Corps learned to read and write. At the present time over 2,000 of these young men are receiving instruction in the "three R's." Although there are records to show that more than 1,000 classes have been formed for illiterates, much of the teaching is done with individuals.

The statement of a Pennsylvania Camp Adviser, written early in September, will serve as an example:

"This enrollee could not sign his own name when he came to this camp. . . . When the present Educational Program was initiated he enrolled for Reading, Writing, and Arithmetic. An enthusiastic student, he has advanced to a stage where he is able to write ordinary letters very legibly, reads words of three and more syllables with surprising facility and understanding, and is engaged in reading History."

A total of 45,522 enrollees are participating regularly in hobby activities. There are over 2,000 of these activities being conducted currently. The *therapeutic* value of this kind of work is great, especially in veteran camps where the enrollees do not have the incentives for educational and vocational study common to younger men. The interest that is manifest and the results achieved are indeed amazing, and the interest in handicrafts is important for the effect that it will have on the life of the enrollees when they leave camp. The hobbies that are developed in camps will serve to keep up the morale of many an enrollee in times of unemployment.

Despite the fact that there is scant time for an enrollee to learn a new vocation, some measure of success is achieved. The new skills acquired through the CCC Educational Program often led directly to jobs for the students. This statement was made by a Rhode Island Camp Adviser:

"During the month of September my best group in point of numbers and attendance was in the class which I called Operation and Care of Trucks. There were originally 35 members. Twenty-four of these completed the course and were issued

government driver's permits by the Camp Superintendent. The course consisted of class work followed by a written examination, then a physical examination (visual and mental) and a road test. Since completing the course three of the men have secured jobs outside as truck drivers and one as a bus driver. The remainder are now driving army or forestry trucks at the camp."

Acquiring high school credits through camp studies is one very tangible result of the Educational Program for many enrollees. An enrollee entered a Pennsylvania camp during May and thus missed the last two months of his third year in high school. Through his keen interest and the cooperation of the Camp Adviser, arrangements were made with his high school principal to grant credits for the work completed in camp. In that way he finished his third year of high school work and plans to enter his senior year when he is discharged from the CCC.

Similarly, eight high school seniors who entered one camp last April were helped to graduate with their class in June.

Another enrollee lacked one-half credit in English in order to be eligible for his high school diploma. The necessary work was done, and accredited. That enrollee is now a fully qualified freshman at the New Mexico School of Mines.

There are other benefits quite as real as the formal acquiring of high school credits. Reading habits have been improved, minds have been awakened, interests have been stimulated or created, and an entirely new outlook on life has been given to some of the enrollees.

Directly or indirectly every man in camp benefits by the Educational Program. Through the Educational Adviser interest is stimulated in the camp library, counselling and guidance are afforded, good motion pictures are obtained, dramatic and musical activities are organized and lectures are secured. Moreover there are a few traveling Educational Advisers who are specialists in particular fields. One of these on the Pacific coast, for instance, is a geologist, a gifted lecturer, who, carrying his samples of rock in his own car, goes to a camp for two

or three days and nights, lectures to the whole company, and interests the enrollees in the geology of the country around their own camp.

Corps Area and Camp Educational Advisers have created a closer relationship between the camps and the neighboring communities by emphasizing the rehabilitation program, or the conservation of human resources. This human appeal has gone out to the country at large through the Emergency Conservation Work in which human as well as natural resources are being saved and restored. It is the Educational Program, as an integral part of camp life, which is doing much to revive self-confidence in thousands of young men. This building of morale by restoring pride and satisfaction to the men appeals to the public and helps to make the Civilian Conservation Corps one of the most compelling enterprises of the Administration.

Responding to this appeal many communities and the leading members of those communities have taken a vital interest in neighboring camps. This cooperation has been achieved by Camp Advisers, Company Commanders, and Camp Superintendents who have informed the people about work projects and camp life.

The growing conception of this relationship between camp and community has elicited a great outpouring of cooperation from schools, churches, clubs, and other organizations. Large numbers of the young men being discharged from the CCC are assured of a better reception in their home towns. Their spirit and training are not to be allowed to deteriorate and die. The Second Corps Area Supervisor, Mr. Thomas H. Nelson, says:

"While officially the Educational Program terminates with the discharge of the enrollees, it is recognized that many of the boys go back into home communities with nothing to do. Through cooperation of Educational Advisers with the Temporary Emergency Relief Administration of New York State efforts are being made to help communities in aiding the returning enrollees to continue their education, to get jobs and to find their places in home and community life."

To assist juniors in finding employment after their discharge from the CCC, the Director, Emergency Conservation Work, approved a plan worked out by the Director of the United States Employment Service and the Office of Education. Upon his discharge, each junior is given a card of introduction to the manager of the reemployment or employment office in the man's home town. The issuance of this card does not carry with it the promise of a job, but it is one of a series of steps the enrollee is encouraged to take in his effort to reestablish himself in his home community.

The CCC Educational Program, although relatively new, has won a place for itself in the picture of American education. Its philosophy and its practical approach to instructional problems long unsolved have attracted the interest and the respect of many leading educators and educational organizations. School superintendents and college officers have taken an active part in the inauguration and conduct of camp programs. The Educational Director recently sent letters thanking them for their cooperation. Responses to that message have been numerous and encouraging; these leaders are asking what more they can do; they seek further suggestions for the plans they are anxious to put into effect.

The National Education Association, the American Council on Education, the American Association for Adult Education, the National Recreation Association, the National Conference on Negro Education, the American Library Association, the Association of Urban Universities and several other organizations of national scope and importance have given CCC education a high place in their consideration during the year. The Educational Director and the Corps Area Educational Supervisors have been in constant demand for conference programs. Their statements have received careful attention, as the discussions and questions of delegates have shown. This interest has taken two forms: first, these leaders want to know what the program is; and, second, they are anxious to know how they can lend their assistance to it. Moreover, they have not been satisfied with mere receipt of information. They

have continued their interest and they have gone ahead to work out measures of cooperation. Their counsel and assistance have been of the utmost importance to the success which the CCC Educational Program has achieved. The CCC Educational Program has become an integral part of the American educational system.

The CCC Educational Program continues to attract favorable notice. The Educational Director has spoken twice over national radio broadcasts, and two more such talks are promised. Educational journals, such as *School and Society* and the *Business Education World,* together with the *New York Times* and the *United States News,* have printed articles on the subject. Papers have been read by the Educational Director before the American Association for Adult Education, the National Education Association, the National Conference on Negro Education, the National Recreation Association; and many Corps Area Educational Supervisors and Camp Advisers have made speeches to local audiences and from local radio stations. In the First Corps Area some stations have given time once a week to the presentation of the CCC Educational Program; and in a number of the camps of the Fourth Corps Area, "musical and other groups have been developed which go on the air regularly from local stations, with programs which are accompanied by short talks on the CCC and its Educational Program."

One of the most significant enterprises undertaken by the Office of Education for the CCC Educational Program during the third enrollment period is the so-called Study Materials Project.

It is apparent to any one conversant with both the literature available for adults and the instruction needs of adults in the field of social sciences that there does not now exist a suitable body of study materials for adults of limited schooling. The existent material is either for children or for students at the college level. It does not take into account, on the one hand, the social experience and the maturity of adults, or, on the other hand, the plight of the adult who, though in-

terested in social sciences, has not the command of vocabulary sufficient to master a college textbook in economics, sociology, government, psychology, etc. Moreover, since CCC Camps are frequently inadequately lighted for educational activities, such matters as large type, liberal spacing, adequate use of pictures and charts, in fact, all that enters into suitable format for the enrollees under camp conditions, need to be given special consideration.

With no money in the CCC Educational Budget to finance the creation of such materials, Dr. Zook, while Commissioner of Education, sought and obtained, on June 15, 1934, a grant of $40,000 from the General Education Board for such use. For administrative purposes, the grant was made to the American Council on Education. Dr. P. W. Bidwell, an economist in the faculty of the University of Buffalo, was promptly engaged to direct the study materials project. After interviewing many noted scholars and others who had not only comprehension of the problems involved, but also experience that would contribute to the solution of those problems, he chose a staff of writers who began their work in Washington in July.

Dr. Bidwell gives the following statement of procedures:

"Our first problem was subject matter. There were many things we thought the boys *ought to know about,* but it seemed important also to find out what they *wanted to know about.* We consulted Educational Advisers in the camps, both by visits and conversation and by means of a questionnaire. In the questionnaire we asked each adviser to give us a list of three questions asked by enrollees in the most recent meeting of his current events discussion group. Tabulation of their replies showed a rather surprising range of interest. There was enough concentration upon the topics which we had already in mind to seem to justify our going ahead with them.

"Then we had to get authors. We decided not to rely wholly upon distinguished authorities in the social sciences, but to have most of the writing done by competent young men in the lower ranges of university faculties. We believed that they would be more easily available in the summer and probably could be driven harder. Also we thought that the younger men might more readily get the point of view of the enrollees;

they might find it easier to talk their language. Altogether we interviewed about fifty graduate students, instructors and assistant professors, of whom we eventually selected six.

"An interesting step in the preparation of the pamphlets was the visits that were made to the camps by each of the authors. After the outline for his pamphlet had been approved, he was sent out for a week or ten days to some region where camps were numerous. There he lived with the enrollees, and, in frequent informal conversations, tried to teach them his subject. His purpose was to find out whether or not his method of presentation would be effective and to learn, if possible, better methods of approach. Altogether 80 camps in 16 states were visited in this way.

"We have given a great deal of attention to making the pamphlets readable. We are printing them in large, black-face type on a good quality paper because of the inadequate lighting facilities in the camps. Particular attention has been given also to the size of the page, the margins, etc. We are planning to have the pamphlets illustrated and have engaged for this purpose Mr. Fred G. Cooper, a well-known artist, who has made a particular study of the use of line drawings in illustrating textbooks.

"One of our greatest problems, of course, is putting the rather complex ideas of economics and sociology into the vernacular of the enrollees. We mustn't repel them by talking down to their level, and at the same time we have to avoid the technical expressions used in academic discussion. Rewriting is a large part of our work. Whether or not we have been successful can only be judged by the reception which the pamphlets get in the camps."

Many persons prominent in school and library work have shown their interest in this project. Undoubtedly, there will be widespread demand for the pamphlets on the part of FERA adult classes, regular evening classes for adults in many cities, transient camps, and such organizations as the Y. M. C. A. and the Y. W. C. A. Already, the American Library Association and the American Association for Adult Education have placed their orders.

There is little doubt that the Educational Program of the Civilian Conservation Corps will, by means of this study ma-

terials project, make a substantial contribution to the literature and the prevailing practices in adult education.

The CCC Educational Program has many needs. To be sure, it is a camp program, conducted in the spare time of enrollees; and as a camp program it must necessarily do without many things in the way of plant and facilities. The fact remains, however, that the present CCC Educational Program was inaugurated after the Civilian Conservation Corps had been in operation a number of months, and that its needs were not envisaged in the planning stage of the whole enterprise. Now, therefore, having won its way into the CCC budget and into the planning for the continuance of the CCC, it should be strengthened and extended in the following ways:

A Camp Educational Adviser should be provided for each junior camp, and also for each veteran camp in which a sustained interest in educational opportunities has been shown. The present necessary expedient of having one Camp Adviser frequently serve two camps is not working out well. A successful camp educational program demands the constant presence of an adviser in each camp. Eight of the nine Corps Area Commanders have stressed this need in reports to the War Department.

Additional supervisory personnel should be provided to assist each Corps Area Educational Adviser. No educational system of such magnitude, operating over a vast territory and with such greatly diversified activity, can be reasonably expected to produce satisfactory results under the field supervision of only the present nine Corps Area Educational Supervisors. In each district, within a Corps Area, a civilian trained in educational administration should be appointed to serve the District Commander as his educational adviser and, under the direction of the Corps Area Educational Supervisor, to keep constant watch over the Camp Educational Programs within the district.

No official comprehensive plan to provide meeting places for classes or groups in camp now exists. Army specifications governing kitchens and mess halls are admirable. The same kind of thoughtful planning should be exercised in providing quiet, suitable space for the Camp Educational Program.

Space used for educational purposes should be well lighted.

In most camps the lighting for evening class work and for study is utterly inadequate. Small bulbs, insufficient in number, are usually fastened to unpainted rafters or ceilings. Faulty lighting is causing much serious eye strain.

The amount of money for educational supplies and equipment should be substantially increased over the present allowance of $100 per camp of 200 men, which amounts to 50 cents per enrollee for a twelve months period.

The Educational Program should be extended to Drouth Relief Camps. Approximately 50,000 men in these more recently established camps are being denied the kind of educational privileges now available to enrollees in the 1,468 previously established camps. All of the reasons for establishing an Educational Program in any camp are applicable also to Drouth Relief Camps.

A comprehensive program of educational motion pictures should be inaugurated. The motion picture is the only device by which some subjects can be taught to large groups under camp conditions. This device broadly used throughout the CCC would not only enrich the instructional effort, but would put the cause of visual education in America ahead by many years.

A plan somewhat similar to the Subsistence Homestead Plan should be provided for the benefit of properly qualified enrollees upon discharge. The Educational Program could materially assist in the training of enrollees for effective participation in such a plan.

The Office of Education has brought all of these matters to the attention of the War Department, and that department seems to be favorably disposed toward them. It is hoped that in the consideration of plans to extend the CCC beyond its present terminal date, March 31, 1935, these suggestions for strengthening and extending the Educational Program may be favorably considered.

C. S. MARSH,
Educational Director,
Civilian Conservation Corps.

The College Guarantees Satisfaction

SOON after Woodrow Wilson became president of Princeton in 1902, the mother of a freshman called upon him. Her son was entering the college and she had come down to see him properly matriculated. As she talked, the President gathered from her agitation that the boy had never before been away from home and, more than that, he had been almost choked to death by her all-embracing solicitude. "Do you suppose he'll get along all right?" she queried. "Madam," replied President Wilson, "we guarantee satisfaction or return the boy."

There is more in this witty retort than at first meets the eye. It is freighted with questions that burrow down to the foundations of higher education. In his scholarly reflections about his clever comeback, did Mr. Wilson mean academic, intellectual growth and development merely, or did he envisage other responsibilities toward this retarded adolescent, who, through the force of circumstances, had finally begun to break loose from his mother's apron strings?

What President Wilson had in mind would be valuable to discuss in the light of his educational programs, but the question is much broader and more important than the concepts of any one college president or educational philosopher. Essentially it constitutes a fundamental question for all colleges and might be stated this way: What is the responsibility of the college toward its students?

For a running start upon the problem I should like to go back to the college of the middle nineteenth century. We are likely much better to understand the complexities of the present by viewing them in relationship to the comparative simplicity of the not too distant past. Despite its many and tenacious roots in the seventeenth and eighteenth centuries, the American college and university of today really date from the 1860's. In that decade American higher education turned three significant corners. In 1862 Congress passed the Mor-

rill Act and opened up higher education to the masses; in 1869 Charles W. Eliot became president of Harvard and finally and irrevocably broke the back of the classical tradition; and in the same year Princeton and Rutgers played the first game of intercollegiate football, and extra-curricular activities began their unchecked invasion of all college campuses.

Up until the sixties the American college amounted to little more than a boarding school, and, judged by the standards of today, a very poor boarding school at that. Students entered at an average age of sixteen, studied a narrow and unalterable curriculum, and lived under the suspicious eyes of clergymen-professors who, as one historian remarks, were "also required to be detectives, sheriffs, and prosecuting attorneys." Students and instructors regarded one another as natural enemies, rebellions and riots frequently relieved the monotony of Greek and Latin declensions, and hazing went to such extremes that in comparison to the Hell Week rompings of today they seem like parlor games.

In his autobiography President White of Cornell has recalled the antagonism with which students regarded their instructors: "It was my privilege," he has written about Hobart College in the fifties, "to behold a professor, an excellent clergyman, seeking to quell a hideous riot in a student's room, buried under a heap of carpets, mattresses, counterpanes, and blankets; to see another clerical professor forced to retire through the panel of a door under a shower of lexicons, boots, and brushes; and to see even the president himself, on one occasion, obliged to leave his lecture room by a ladder from a window, and, on another, kept at bay by a shower of beer bottles."

At Dartmouth unpopular members of the faculty were visited by groups of students who would stand outside their windows and blow tin horns late into the night. At Princeton in 1814, for no particular reason, the student body set fire to one of the outhouses of Nassau Hall and, by exploding two pounds of gunpowder in a corridor, almost wrecked that venerable old edifice itself. A few years earlier the undergrad-

uate body at Williams, chafing under the severities of several of the tutors, petitioned their removal, and when President Olds refused to treat with them the entire junior class stayed away from recitations for almost a week. At Yale in 1828 the food at the Commons precipitated the famous "Bread and Butter Rebellion." Two years later the sophomore class none too politely declined to recite their mathematics as the rules required, and the riots that ensued have come down in history as the "Conic Section Rebellion."

Along with these faculty-student imbroglios went town and gown riots, a pastime in which Yale students particularly specialized. In 1841 they staged what has been since known as the First Firemen's Riot, a street fight which lasted from early afternoon until past midnight. The students seem to have won, since the historian of the mêlée records that they cut the hose into a thousand pieces, overturned the engine, and strewed fire-fighting apparatus about the town and college yard.

But, compared to two subsequent tilts, this 1841 riot seemed as mild as a May-pole dance. In 1854 a group of townies objected to the conduct of a number of undergraduates at a New Haven theater. The fight that followed brought death to a local bartender whom a student struck with a dagger; and four years later, on the occasion of the second Firemen's Riot, another victim lay dead upon a New Haven street—a student had shot and killed one of the firemen. Townies, however, were not the only people damaged in these pitched battles. George Bancroft, greatest American historian of his day, lost an eye when, as a Harvard tutor, he attempted to quell an incipient uprising. Another Harvard tutor went through the remainder of his life with a limp after an encounter with a group of student assailants. And many were the black eyes and cracked skulls nursed by students and faculty alike.

The most interesting fact about college rebellions is that they have almost entirely disappeared. Last year a small group of students at the College of the City of New York

staged a demonstration against the president, and the newspapers occasionally play up an especially spirited football disturbance, but such flurries belong to entirely different species and do not undermine the generalization that old-time student rebellions have gone the way of the bustle, and the flying wedge, and the four-cylinder automobile. Moreover, faculty-student antagonism has pretty well vanished, too. We still hear considerable complaint that students and professors have little to do with one another outside of class, but even where that is true no organized acrimonious vendetta rages. Students and professors are all too seldom cherished friends, but certainly they are no longer sworn enemies.

Why have clashes of this sort vanished from college life? The explanations are easily spotted. There are two: first, Charles W. Eliot sponsored the forty-year-old but undernourished elective system and succeeded in establishing it firmly at Harvard and indirectly at every college of the country; and, second, athletics and extra-curricular activities began to drain off most of the excess energy of undergraduates. When one considers the scanty curriculum and the paucity of student social life during and before the sixties, he marvels that the students behaved themselves as well as they did.

Consider the curriculum that Charles W. Eliot found at Harvard upon his inauguration. The faculty consisted of twenty-seven members, nine of whom taught three subjects: religion, Greek, and Latin. The only other college subjects taught in Harvard College at the time were rhetoric, elocution, modern languages, mathematics, philosophy, and astronomy, and a thimbleful of chemistry, physics, and history. Modern languages, although opportunities for studying them were available, had not yet become academically respectable. Students could take them only by the payment of special fees. The sciences were admittedly step-children, happy for an occasional bone. Physics, chemistry, biology, and physiology were being taught inadequately in some of the professional schools that clustered about Harvard, but undergraduates had meager opportunities to study them. The social sciences, aside

from a little history, were not even heard of. The fine arts, music, and architecture were being cultivated somewhat at Yale, but as academic subjects Harvard scowled at them disdainfully. Worst of all, English literature had neither mention nor place in the curriculum. Greek, Latin, and Hebrew covered the major part of the students' time, but it never occurred to more than a very few individuals that students might well learn something about the literary merits of the English Bible, Milton, Shakespeare, and Keats. Engineering subjects came in for some attention in the Lawrence Scientific School after 1847, but the entrance requirements of the school were so inferior that both the college faculty and the college undergraduates looked down upon the school and its students from their lofty classical Acropolis.

Examinations were almost entirely oral, although Eliot in 1857 had introduced written quizzes in mathematics. At Brown, up until 1875, students passed their work with a grade of 25 per cent. In that year the minimum went up to 50 per cent, but if the student flunked his first examination he could take a second and sometimes a third. This arrangement continued for many years, and Brown did not entirely abandon it until 1914. Grading systems, such as we know them, did not appear at Harvard until 1886. A few professors now and again lectured to their classes, but the recitation system predominated. Laboratory instruction, the seminar, and special untrammelled work for gifted students were yet entirely undeveloped. The established mode of instruction required undergraduates to memorize passages from textbooks and to come to class prepared to recite them almost by rote. This situation is well illustrated by a comment made by a Harvard graduate to William James. "I can't understand your philosophy," he complained. "When I studied philosophy I could understand it. We used to commit it to memory."

The scandalous educational poverty of the colleges in those days is perhaps best exemplified by the situation in the Harvard Medical School at the time of Eliot's inauguration. Students in that college were required to take nine subjects. The

course lasted for eighteen months, and at the end of that time, if a student passed five of his nine courses, he could sport an M.D. degree. Whether or not he passed five courses was determined in a primitive and clownish fashion. Examinations were all oral, and were held on the same day. Henry James in his biography of Charles W. Eliot describes the scene in this paragraph:

"In a large room a number of professors sufficient to examine in the nine principal subjects disposed themselves at suitable intervals. The students circulated singly from one to the next and were quizzed on a new subject at each station of the journey. Every ten minutes a presiding functionary sounded a bell and the candidates moved along. When the bell had pealed nine times—that is, after a batch of candidates had spent an hour and a half in going round the circle—the examiners were expected to be ready to vote. This they did without consultation. In fact, the manner of voting was ingeniously devised so that the adverse opinion of one examiner should not influence others. Each had a piece of cardboard that was white on one side and marked with a black spot on the other. The Dean called the name of a candidate and pronounced a formal question and a command—'Are you ready to vote?—Vote!' The nine examiners simultaneously thrust forward their cards. If the Dean counted not more than four black spots, the candidate received his degree. If five cards showed black spots, the candidate had failed. . . ."

It is amusing to look back upon those ludicrous days, and yet the practices that prevailed in the Harvard Medical School were typical of those in the undergraduate colleges and in all the other so-called professional schools. Eliot, who had a few years before spent twenty months in Europe studying European methods of education, immediately recognized that, if American education ever expected to become respectable, all of these mediaeval techniques needed to be reformed. With unfailing energy and relentless purpose he proceeded not so much to clean house as to build the house all over again.

Look also at the extra-curricular life of undergraduates in those days. The first intercollegiate athletic contest of any sort was a boat race between Yale and Harvard in 1852 on

Lake Winnipiseogee. Seventeen years later the first intercollegiate football game took place, but in general both sports and social life were undeveloped. Students wore high silk hats, frock coats, and side whiskers. A few student publications existed, but they were in general poorer than the journalistic ventures of our preparatory school students of today. Because a large percentage of students planned careers in the ministry and in the law, debating had some vocational value, but intercollegiate contests did not begin until the seventies in the middle west, and not until the nineties in the east. Fraternities had been part of the college scene for four or five decades, but only a small number owned houses and the societies were comparatively few in number and insignificant in prestige. The guitar and banjo had recently been introduced, but polite people still considered dancing a libidinous device of Satan.

The football played in those days resembled a street brawl more than a game, since 25 men made up a team and the players wore no uniforms. Yale played Columbia in 1872 with 20 men on a side, and Princeton and Harvard played in 1876 with 15 men on a side. It was not until 1880 that the eleven-man team became a standard, and until 1890 paid coaches had not yet been heard of. Basketball, hockey, soccer, tennis, and swimming were not to appear as college sports for years to come, and track had not begun until the seventies. Athletic letters were not generally awarded until the last decade of the century. Athletic cheers and cheer leaders arrived with their questionable pageantry about the same time. College colors came in with athletics, Yale first adopting green in 1853, and Harvard crimson at the suggestion of Eliot when, as a member of the crew that rowed against the Boston Irish in 1858, he and another oarsman wore crimson handkerchiefs on their heads. "Fair Harvard" had been written in 1836 on the occasion of the bicentennial anniversary of Harvard's founding, but most of our present-day college songs did not come into vogue until after athletic contests grew in popularity.

Considering the curriculum, the teaching methods, and the deficiencies of the then current social life, is it any wonder that the adolescents who made up the student body of those days delighted in riots and rebellions? But the establishment of better educational methods and of extra-curricular activities were by no means complete blessings. Both the revised educational programs and the introduction of extra-curricular activities had their attendant evils. Of the undesirable characteristics of the latter we have heard so much that I need not take the reader's time to rehearse them. About the negative results of the enhanced curriculum, however, we hear so little that I should like to point out at least one major development from the evils of which we are still suffering.

When it became possible for students to elect a good fraction of their schedules, departmentalization of subject-matters immediately developed. With departmentalization grew up specialization; and with specialization there came very rapidly the acceptance by both administrators and faculty members of the notion that college teachers must become research experts in their specialties. The elective system had much to do with this development, but the rapid growth of "the university idea," particularly as expounded by President Gilman of Johns Hopkins, precipitously pushed American higher education into an emphasis upon scholarship and the advancement of the frontiers of knowledge. Without anyone being more than half aware of the trend (except perhaps Gilman), American higher education took over the continental, and especially the German, philosophy of education—bag, baggage, and labels.

In the scurry to make over Harvard, Yale, Columbia, and other outstanding institutions from colleges to universities, faculties left their students to their own devices. Their influence rapidly spread to colleges large and small. The wars between faculty and students disappeared, but so did interest in students. Scholarship *per se* became the professorial shibboleth. Faculty members raced after Ph.D.'s and scholarly

research, and on their part the undergraduates threw their energies into athletics and the rapidly developing extra-curricular activities. Just fifty years ago the Harvard faculty consisted of 189 members, only 19 of whom had their Ph.D.'s. During the same year the Michigan faculty was made up of 88 people, only six of whom had Ph.D.'s. But these few doctors of philosophy formed a vanguard of a great army of college teachers who rapidly became entangled in what William James called the Ph.D. octopus, and as they became entangled, by the very nature of their entanglement they were forced to devote their energies to scholarship and research and to neglect the peculiar educational and personal needs of their adolescent undergraduates.

This scampering after higher degrees, and this emphasis in the colleges and universities upon advancing knowledge, went on for about forty years without abatement. The values of the scholarly ideal to the universities, to our American civilization, and for that matter to the world at large were tremendous, epoch-making, and altogether immeasurable, but the new emphasis seemed to many discerning people to be suffocating other quite as important educational values, and a clamor of protest arose.

The background of this protest deserves further appraisal. The old-time college had been essentially an Alma Mater, "knowing her children," as Cardinal Newman expressed it, "one by one." It was not, he pointed out, "a foundry, or a mint, or a treadmill." Yet in the opinion of a large number of educators the university idea had transformed the college into just what Cardinal Newman said it ought not to be. Those who raised the protest agreed with Newman's judgment of the nature of a college; and, although they recognized the need of explorations in search of new knowledge, they strongly dissented against the slaughter of Alma Mater as a burnt offering upon the altar of scholarship.

Two examples among a large array are perhaps sufficient to illustrate how strongly college-minded professors felt about the matter. One comes from Yale, and the other, interestingly

enough, from Harvard itself. Overwhelmed by the shattering of "college life" over the country, Arthur T. Hadley, who was soon to become president of Yale, asked these questions in 1895:

"Can Yale preserve its distinctive features as a *college* in the midst of its widening work as a university? Can it meet the varying intellectual necessities of modern life without sacrificing the democratic traditions which have had so strong an influence upon character? Can it give the special education which the community asks without endangering the broader education which has produced generations of 'all round' men, trained morally as well as intellectually?"

He went on to point out that "these are questions which every large college has to face. They are not peculiar to Yale. If Yale feels their difficulty most, it is because she is the largest representative of the traditional American college idea, which Harvard has, to all intents and purposes, abandoned."

What Hadley felt at Yale in 1895, Lowell felt just as strongly at Harvard in 1909 upon his accession to the position which Eliot had held for forty years. That same year Hamilton Holt, now president of Rollins College, decided that the confusion in the colleges should be investigated, and as editor of *The Independent* he commissioned Edwin E. Slosson, later the well-known popularizer of chemistry, to trek about the country visiting fourteen leading universities, both private and public. His articles were published in *The Independent* during 1909 and early 1910, and were later brought out together as a volume entitled "Great American Universities."

Should you read Mr. Slosson's book you would find one dominant motif: the need of individualization in the colleges! "Here," he wrote, "is the weak point of all the great colleges, and even of the smaller ones—the lack of personal contact between teacher and student. It is not due to the influx of an overwhelming number of students, because the faculty has generally grown in proportion or more. It is

partly due to defective organization and partly to the development of a new school of teachers, who detest teaching, who look upon students as a nuisance, and class work as a waste of time." "Almost every educator," he continued, "if asked what was the main fault of our large colleges, would have said that it was the loss of personal relationship between instructor and student, resulting in ill-adapted and careless teaching on the one side and in diversion of interest on the other. Teacher and pupil were not even on opposite ends of the same log. They were at opposite ends of a telephone working only one way."

Mr. Slosson even went so far as to point out that at Harvard (Eliot had just resigned and no one knew who would follow him) "it will be the duty of President Eliot's successor to see that individualized education is applied." Whether Mr. Lowell read Mr. Slosson's articles no one seems to know, but whether he did or not, certain it is that he began even in his inaugural address to sponsor the doctrine to which Slosson gave voice. He devoted his address entirely to Harvard College and its needs, neglecting even to mention research and scholarship. He talked about the values of "college life," a phrase which Eliot never used. He suggested that graduate education had sabotaged the distinctive function of the college. He urged that dormitories, especially for freshmen, be built, and that everything within reason be done to develop undergraduates as people as well as students. "Among his other wise sayings," he pointed out, "Aristotle remarked that man is by nature a social animal; and it is in order to develop his powers as a social being that American colleges exist. The object of the undergraduate department is not to produce hermits, each imprisoned in the cell of his own intellectual pursuits, but men fitted to take their places in the community and live in contact with their fellow-men."

What Hadley and Slosson and Lowell were saying in 1895 and 1909, others, with less prestige, had been saying and feeling for a couple of decades. Some of this sentiment for the student and for college life produced action, and there grew up in a large number of institutions a new variety of

administrator who has come to be known as a student personnel officer. Consider, for example, the office of college dean, which today we take for granted, but which is, as a matter of fact, a comparatively new administrative position. Eliot introduced it at Harvard soon after his election to the presidency, but he conceived his new assistant almost entirely as a disciplinarian. He himself had larger game to hunt, and so promptly and very likely with considerable relief he dumped his distasteful police responsibilities into the lap of the dean. But the position of dean very rapidly took on many other functions besides that of discipline. On the one hand it became a most important educational office, and on the other it took on unheard of activities that made it a valuable student personnel agency in the sense of the current meaning of the term.

In the middle west, and later in the east, two types of deans began to be appointed: deans of colleges and schools, and deans of students. The latter were denominated deans of men with responsibility for the extra-instructional life of men students, and deans of women with the same portfolio for women. Meanwhile other personnel officers joined the fast-multiplying administrative staffs. Directors of admission soon appeared. The Y. M. C. A. secretaryship became a salaried position, and in most institutions the college paid a large fraction of the stipend. Individuals were appointed to help students find positions upon graduation and part-time work while still in residence. Others—or sometimes the placement officers—were charged with helping students determine upon their choice of careers. Student health services sprang up. Numerous plans for counseling with students were evolved. Dormitories came in for unprecedented and enthusiastic emphasis, flowering in the Harvard and Yale house plans of today. Intelligence testers, flush with their army success during the war, arrived upon hundreds of campuses. Some institutions established special personnel departments. Loans and scholarships grew to unimagined size, and significance and social centers, called college unions, sprang up on fifty campuses.

These many agencies set up to counteract the impersonality of the new intellectualism have not become part of the present-day college without considerable struggle and much baffling confusion. A prominent faculty member wrote me two years ago, in protest against some of my activities, that we have "gone personnel mad." Others, at all universities, toss about the critical and even angry epithets, "coddling," "spoon-feeding," "paternalism," and the like.

The notions these gentlemen support are, it should be observed, essentially continental. They believe that the American college, like German and French universities, should offer intellectual pabulum to undergraduates, but not a whit more. They are usually economic and political liberals, but they support the theory and the practice of student *laissez-faire*. They have a good deal to say about democracy, but in education they are outspoken aristocrats. They pooh-pooh the traditional Alma Mater ideal, and they disdain and stigmatize the sort of activities which personnel officers carry forward in the colleges.

Now, of course, many college people think these gentlemen very much in error—philosophically, psychologically, and practically. A large fraction of most faculties believe in the importance of the social and personal facets of the college course. They support and encourage student personnel services. So do the majority of parents and alumni. Because the backing of these groups is often more emotional than conceptual, I should like to summarize for the reader the four concepts that underlie student personnel services.

Concept Number One: Once a college has admitted a student it has a moral obligation to do everything within reason to help him succeed. In the United States two types of admission procedures predominate. Private institutions have within the past two decades been forced, because of their swollen waiting lists, to institute selective schemes of various sorts. State supported institutions, on the other hand, usually admit most applicants who have graduated from first grade high schools. But whether a student has been hand-picked

from a large number of applicants, only a fraction of whom may be accommodated, or whether he comes to a state university because of his legal right, the institution which matriculates him has a duty to society to help him achieve success.

The practice prevails almost universally that if a student does not immediately mesh with the traditional and frequently anachronistic requirements of the curriculum out he goes—and out he goes unceremoniously. This is not the occasion to comment upon the admission requirements of the colleges, but, whatever they may be now or in the future, the responsibility of the college remains the same: once a student is admitted he must be conscientiously helped to make good. This does not mean that he should be either academically pampered or personally indulged. It does mean, however, that the college should perfect its teaching and administrative practices to prevent the excessive, expensive, and altogether unnecessary slaughter of the innocents.

Concept Number Two: The college is much more than an agency for providing academic instruction. No informed person will gainsay that a primary function of the college is to give the student an intellectual grasp of and grip upon the world. But to develop the intellectual potentialities of the student is not enough. The college has other and equally important functions. I have already somewhat developed the history of the impact of the narrow German conception of higher education upon traditional American practices. I have quoted the protests of two prominent university administrators against the resulting depersonalization of education, and I might cite the judgments of a large number of other important educators. I doubt, however, that the point needs to be labored, even though a small but influential group of professors still vigorously support the German thesis, and even though their chief spokesman, Dr. Abraham Flexner, has within the past three years published his vigorously critical volume "Universities: American, English, and German."

It is the business of the college to educate the student in a wide variety of directions. Dualism of mind and body is

philosophically and scientifically dead. Its corpse must similarly be removed from the educational scene. We can no longer deal with the student's mind merely. We must take into account the total human being socially, physically, emotionally, esthetically, and vocationally as well as intellectually. The college man should not only be capable of sustained and disciplined thought but also of graceful and cooperative social relations. He should be equipped to spot and combat hokum and bunkum, but likewise he should be cultivated in broad sympathies and sensitized tastes. He should have at his command finely sharpened tools of thought, but he should be socialized morally, economically, and politically to use his competencies for his community rather than individualistically and selfishly. Physically and emotionally he should be assisted to discover and overcome unsound factors in his make-up so that his impulses and his nervous system will be his allies, not his enemies. Finally the college should help him gauge his interests, aptitudes, and abilities that he may effectively use his training and capacities.

All this seems obvious enough, if not even platitudinous. Social philosophers from Plato to Dewey have through the centuries been urging education to broaden its range. Yet in 1923 a faculty committee flayed the educational enterprise at Dartmouth College and brought forth this momentous anachronism: "To maintain scholarship is the prime function of Dartmouth College." This was but a dozen years ago, and there are still some faculty members throughout the colleges and universities of the United States who support such a limited German philosophy of education. Fortunately, however, the center of gravity is changing. The curriculum of today includes instruction in art and esthetics which twenty-five years ago most colleges frowned upon. Physical education has taken deep roots in the college because of the growing conviction that college graduates should be physically sound. The college is rare without some sort of a health service for students. Psychological and psychiatric clinics seek to overcome emotional instability. Vocational counseling and place-

ment services attempt to help the student analyze his equipment and to start him upon his career. And so on in many directions, whether the Flexnerians approve or not, the college is today much more than an agency for providing academic instruction. In future decades it is more than likely that its conceptions and techniques will be even further developed.

Concept Number Three: The college, peopled by perplexed and anxious adolescents, has an opportunity and, what is more, a responsibility to help these youths resolve their insistent and portentous dilemmas. No educator of undergraduates should be permitted to forget for a moment that the period of college residence corresponds almost exactly with the most cataclysmic physiological and psychological changes that the individual faces during his entire existence. Life is never more intensely felt nor more furiously lived than by the boy and girl between eighteen and twenty-two. Nor is it ever more completely confusing. How these urgent and inescapable problems are solved, and where these new and titanic energies are directed, will determine the color and quality of all their subsequent years. The college which does not recognize and grasp its precious privilege of guiding these dynamic drives into constructive behavior patterns is not a college at all but an unhealthy and socially unacceptable academic factory. The sooner it closes its doors the better for American youth and for American society.

Five varieties of pressures play upon the undergraduate. In the classroom he meets new concepts in the sciences and social sciences which frequently throw doubts upon the social order to which he belongs and which he has always taken for granted; new glandular secretions and biological impulses overwhelm him and drive him into blundering exploration for an ethical code; unless he continues to live at home—and often even then—he must establish himself in a new and not always cordial social environment; because of his intellectual, biological, and social insecurity he is driven headlong into a passionate search for a creed, for something stable to which

he may tie in the storm and stress of his bewilderment; and finally he must determine into what profession or vocation he will direct his interests.

Every undergraduate faces these five problems to a greater or less degree. Some are burdened with still others: the necessity of earning college expenses in whole or in part; the handicaps to his academic work of poor eyesight or defective hearing or inadequate health; the limitations of insufficient preparation not only in specific subjects but more particularly in the techniques of study; and quite as important as any, the deficiencies arising from arrested emotional development.

Some tough-minded youths survive these ordeals apparently unharmed. Others achieve unsatisfactory but workable adjustments. A large fraction, however, fall by the wayside, listed in the college records as academic failures. Anyone who has investigated these college failures knows the soundness of President Clarence C. Little's conclusion "that perhaps numerically the largest and certainly the most tragic cause of failure in college is emotional in nature." "The real reason why a student fails a course," writes a professor of romance languages at the University of Chicago, "lies back of his negative recitations, his inability to pass certain tests, or his neglect of essential features of the instruction. The real reason is usually personal, and, because it is personal and extraneous to the course, it very frequently escapes the attention of the instructor, particularly in instruction at the college level where student-instructor contacts are few. As a result, the student goes on record as a failure in the specified subject, with the circumstantial evidence commonly substituted for the real reason."

If President Little and Professor Bond are correct in their judgment—and they are supported by a host of other witnesses—then it seems to follow logically that merely to promote the intellectual functions of the college we must provide intelligent and sympathetic assistance to undergraduates in meeting their problems as young men and young women. But we must go even further. Much more than academic achieve-

ment is involved. We, who as adults immediately run to experts when we have medical or legal or financial problems, must recognize that the adolescent should not be left at the most critical period of his life to tussle alone with perplexities, the solution of which may shape or misshape his entire career. To help students make the momentous transition from adolescence to maturity is, I repeat, the responsibility as well as the opportunity of the college.

Concept Number Four: To further the intellectual as well as the personal development of its students, the college must provide a wholesome and stimulating social environment. If it be conceded that the college is more than an array of classrooms and laboratories and that it has a responsibility toward its students as individuals, then we must give attention to ways and means of achieving the college's extra-instructional objectives. Many college administrators make these concessions with disarming forthrightness, but all too frequently they regard well said as well done. Public avowal of faith, however, is not enough. We must have works.

Several devices have historically developed to promote the social intercourse of students: dormitories, dining halls, fraternity and sorority houses, college unions, and miscellaneous extra-curricular activities. All of these—with the possible exception of college unions about which I have only the meagerest of information—we have in general merely tolerated as necessary evils. Few educators have seen their immense possibilities as informal instruments of education. Fewer still have made them contribute constructively to the educational process.

Take dormitories and dining halls, for example. One would have difficulty to list more than a dozen colleges and universities over the country that are seriously developing the communal life of students as they live and eat together. I do not mean beautifully equipped buildings. We have plenty of buildings. I mean dormitories that satisfy the ideal expressed by Stephen Leacock:

"As a college teacher," he wrote, "I have long since realized that the most that the teacher, as such, can do for the student is a very limited matter. The real thing for the student is the life and environment that surround him. All that he really learns, he learns, in a sense, by the active operation of his own intellect and not as the passive recipient of lectures. And for this active operation what he needs most is the continued and intimate contact with his fellows. Students must live together and eat together, talk and smoke together. Experience shows that that is how their minds really grow. . . . If a student is to get from his college what it should give him, a college dormitory, with the life in common that it brings, is his absolute right. . . . A university that fails to give it to him is cheating him."

Consider also the scant attention which college authorities have given to fraternities and sororities. Here at our very finger tips is one of the most effective educational devices ever invented, and yet we have permitted it to become the source of more grief than any other undergraduate institution with the exception of athletics. President Hyde of Bowdoin once remarked that "fraternities are like apple trees. Left to themselves, their fruit is small, sour, worm-eaten. Cultivated, sprayed, grafted, and pruned, their fruit is large, sweet, and sound. . . . Next to the supreme importance of securing the right men for instructors, the keeping of college fraternities in a democratic approximation to equality, a vigorous and friendly rivalry, and a wholesome moral and intellectual life, is the college officer's most delicate and rewarding privilege."

Fortunately the era of *laissez-faire* concerning fraternities is coming to an end. Some of the national organizations themselves, notably Delta Tau Delta, have initiated well conceived programs for the cultivation of some of the latent richnesses of their soil. Here and there a college president, too, has given ear to the pleas of his dean of men and his dean of women for an active rather than a passive program. Ten years from now the picture may be very different from today. That will depend upon how many college administrators see in the inherited social institutions of students an opportunity rather than an affliction.

The same generalization applies to extra-curricular activities. We tolerate them, but we do not study them. We set up faculty committees to police them, but we do not admit and promote their inherent values. "Whether one likes it or not," wrote Dean Hawkes of Columbia College in his annual report for the year 1928-29, "the fact remains that when a college graduate attempts to find and to hold a position either in business or in the professions his background and social qualities are the first facts concerning him that his superiors and associates observe. If these are satisfactory, his intellectual abilities have an opportunity to assert themselves. But without these superficial attractions the more solid qualities never have a chance. If this is so, and if the college pretends to make the college residence as complete a preparation for the life work of the student as possible, then it cannot fail to support morally if not financially those extra-curricular activities of an athletic, literary, and social character which do more for the development of the aspect of the student that one first sees when one meets him than all of the courses in the entire curriculum."

Besides those students who participate in the benefits of dormitory life, fraternities, and extra-curricular activities, there are at every institution a large number of shy youngsters who never seem to mesh with college life. I suppose that the college union is meant to be the haven of these boys. I never realized the tragedy of their lot until last spring when one of them visited me at my office. The Union, for some reason, had not reached him, and he very much needed advice about making friends. He had almost finished his junior year, but he knew no one other than his roommate. I suggested how and where he might meet other students, and proposed that he acquire some of the skills that people use to make and develop social opportunities. I told him, for example, where he might well learn to dance and play bridge, and together we worked out a schedule of activity for acquiring these abilities. I also invited him to come back and see me in the fall.

About the middle of the fall term he came, and with noticeable elation. He had learned to dance and to play bridge, but that had not caused his high spirits. In his judgment he had done something much bigger than that. He had finally screwed up enough courage to have a meal at Hennick's. When I point out that Hennick's is the campus hangout where I assumed every student went as naturally as he went to his classes, the reader will understand the pathos of the situation. Here was a boy who for more than three years had been flattening his nose longingly against the windowpane of college life and who needed but the least bit of friendly faculty encouragement to come down from his bleacher-like upstairs window and venture out. I wondered at the time, and I have wondered ever since, how many other undergraduates are similarly socially retarded. Furthermore, I have speculated as to whether or not we can honestly graduate such individuals into the company of so-called educated men.

These are the basic concepts underlying student personnel services. There are others, but they merely supplement these four. Rather than overwhelm the reader with further postulates, I briefly summarize the argument for intelligent interest in the student and his activities outside of class. It runs like this:

Once a college has admitted a student it has a moral obligation to do everything within reason to help him succeed. This obligation encompasses much more than providing academic instruction. It includes helping the adolescents who make up our student bodies to resolve their problems as individuals. It embraces an intelligent concern for the physical and social environments of undergraduates. It makes available dormitories, dining halls, fraternities and sororities, extra-curricular activities, health services, placement offices, loans and scholarships, student union buildings, and finally it provides counseling opportunities with faculty members, special counselors, or both. These activities are not sponsored by the college merely to make the undergraduate years pleasant and vivid. They

engage the attention of college administrators not only because they improve the quality of academic work but also because they are necessary complements of the classroom and laboratory. The student cannot be educated in an academic vacuum. He must be cultivated as a person as well as an intellect. Because the curriculum makes little provision for the student's individual development, personnel services have come into existence. Without their contributions to the total education of the student, American higher education would rapidly dwarf both in physical stature and social significance.

And that brings us back to the question with which we started: What is the responsibility of the college toward its students? The answer to that question seems to me to be this: to guide its adolescent charges from immaturity to intellectual and emotional as well as physical adulthood; to train their minds that they may be masters of the complex society which they inherit; to bring them recognition of their responsibilities as citizens and moulders of their world; to cultivate the warm human qualities that will make it possible for them effectively to use their intelligence and their citizenship; to fashion them as gentlemen as well as scholars; to take boys, in brief, and to make of them men.

W. H. COWLEY,
Ohio State University.

Real and Imaginary Dangers in the Testing Movement[1]

INTRODUCTION BY DR. EUGENE R. SMITH

This is a meeting not only of the institutional members of the Educational Records Bureau, but also of the Committee on Personnel Methods of the American Council on Education, the Commitee on Educational Testing of the American Council on Education, the Commission on the Relation of School and College of the Progressive Education Association and the Educational Records Bureau Committees.

It seems to me to represent in itself one of the most hopeful signs in American education. There is no question that we are facing an important crisis in the care of our children and youth. Everywhere we see recognition of the seriousness of the present time and of the new demands on our institutions for education. All over the country there are springing up various groups making attacks on different phases of this question. These attacks almost always arise from the fact that people realize that America is in a very peculiar position. We of all nations in the world stand committed to democracy and to universal education. Yet we have not reached the point where we know how best to carry out our education in a democracy of this type. We have gone far, but the further we go the more problems we see. At times we have been accused of laissez-faire and with some degree of truth, but there is another danger arising from these many attacks on our problems. There is danger of overlapping, of duplication, of working at cross purposes. It seems to me that this meeting is one of the significant indications that we are recognizing that only with the thoughtful cooperation of all the agencies interested in education can we make a genuine impression upon our problem.

[1] Opening Address at the Third Educational Conference, New York, November 1-2, 1934.

This morning we have gathered those who represent a number of important attacks on these educational needs. Our papers and discussions will be a pooling of ideas and information concerning the results of experiments that have been made in various groups. We should go further because of this cooperation than we could proceed by our separate attacks on the problem in which there would be danger of duplication and of working against each other.

In the name of these various organizations I am very glad to welcome those of you who are here and to invite you to take part in the meeting. One of the best features in past meetings has been the degree to which those present have taken part in the discussion. We hope that you will also find inspiration and ideas to take back to your work from the meetings that you attend.

The first speaker is probably well known to all of you. You probably do not know how deeply Dean Hawkes is concerned with the problems we are discussing. He is Chairman of the Cooperative Test Service, of the Educational Records Bureau, of the Committee of the American Council on Education which is working on a manual for teachers concerned with the problems of testing. He has been so interested in this subject that he has added one responsibility after another. I am very glad to introduce to you Dean Herbert E. Hawkes of Columbia University, who will speak on "Real and Imaginary Dangers in the Testing Movement."

ADDRESS BY DEAN HERBERT E. HAWKES

IF THE process of education were a simple one, it is certain that after two thousand years of experience there would have come to be a general agreement regarding its objectives, both in general and in particular, and regarding the means by which those objectives may be attained. Not even the general objectives of the educative efforts to which those in this room are devoting their lives can be expressed completely and comprehensively, either with conciseness or clarity by any one of us. And when we come to the problem of defining the exact objectives of particular branches of study, as,

for example, the social studies, the difficulty is even more baffling. This difficulty in defining the precise objective of our professional aims leads our critics to assume that we have no objectives, and that the teacher is in the position of the blind leading the blind. One might observe a similar difficulty in other of our human relations. If everyone here present were called upon to define concisely the reason why he does and should love his mother, or his friend, or why he enjoys the open spaces of the country, I imagine that one would obtain a great and perhaps a contradictory set of replies. This would not mean that love of friend or mother does not exist, but rather that it is so many-sided and permeates so profoundly the very essence of our being and depends so fundamentally on the kind of person that one is, that a statement by any one of us is necessarily inapplicable to others. That is to say, one must know more about the individuals who answer the question before one can understand the validity of the response.

In attempting to evaluate any educational process, there is not one, but many temperaments, not one but many individual as well as group variants involved. Not only do we aim to contribute all that we can to the personal joy of living of each of our students, but we wish to lead them as skillfully as we can into as useful a social attitude toward their fellows as is possible. This result must be attempted by teachers, and by those in charge of the administration of our schools and colleges, all of whom are human beings, with ideas, and in some instances even with ideals, with prejudices, and with temperamental slants that urge them to accomplish their work by a great variety of methods.

Some of us attack our job as if the world had previously sat in darkness, but with our coming had, or ought to have, seen a great light. But often that light is as darkness to our colleagues. Some of us approach our tasks in the spirit of the early forty-niner in California, who ran over the hills expecting to pick up great nuggets of precious metal that had been lying around waiting for his arrival since the breaking up of primeval chaos. Some of us feel the necessity of going more conservatively, making careful surveys and attempting

to find out what is beneath the surface before we organize a producing company.

The only point in my making these somewhat cryptic remarks is to emphasize the fact that although we may attack this problem of education in different ways, it is altogether probable that each of us will find something worth while if we persevere. Because some one else finds that it fits his way of doing things to proceed in some other way than ours, does not mean that he will not accomplish anything worth while. And if we recognize the desirability of a variety of attacks against the citadels in which ignorance and immaturity are intrenched, we express the hope that those who are using a different technique from ours will at least be as open-minded toward us.

As I see it, the so-called testing program about which I am supposed to talk for a few minutes is only one feature of a constantly broadening philosophy of education. In order to do our jobs, either in our schools or in our colleges, we need and must have more information than has ever been available concerning the characteristics, capacities and past achievements of our students if we are to do them justice or hope to approach our own standards of accomplishment. This can only be brought about by a more extended fact-finding and advisory service in every level of the educational process than we now possess. The testing program is intended to render such a fact-finding service, and this is the fundamental function that it performs for our schools and colleges, enabling us to direct these students, or, better, enabling them to direct themselves toward the good life. In so far as the testing program helps in this direction, it is a good thing.

The idea of knowing the student we presume to teach is relatively new, and, like all new ideas which are of themselves intrinsically valuable but which depart radically from old traditions, it presents many moot questions. The tendency to idealize what is being replaced, to think that the old accomplished more than it really did, always comes to the surface. All one can expect is that the "Old Guard" should be open-minded. On the other hand, some of the more ardent adher-

ents of the new are altogether too ready to discard all that has been in the interest of novelty. We bespeak the same tolerance on the part of our more dynamic colleagues. There certainly are dangers in any progressive new idea, and this is no exception. The thing that we must do, if we wish to keep up with the procession and really want to help our students achieve their maximum potentialities in the realm of the factual as well as in that of the spirit, is to discover which of these are real dangers and which are imaginary.

One of the questions most often raised regarding new-type tests is that they deal only with facts. To a certain type of mind, facts are odious, not to say embarrassing. A few days ago I received a carefully prepared and constructed criticism of certain features of the curriculum of Columbia College from a group of serious minded undergraduates. For the most part this report, although quite critical, was helpful. But one remark was dropped which bears out the belief that there is a considerable number of otherwise intelligent persons who are fact-shy. They said that, particularly in the social studies, they wished the courses to deal with trends, with movements, and with the implications of facts, but not to concern themselves with the actual facts. If this statement is taken seriously, as many do take it, a direct issue is drawn. True that unless one, either for himself, or with the aid of some more mature scholar, tries to see what facts mean, they are so much intellectual impedimenta. But I do not see how anyone can, with any soundness of thought, evaluate the trends and implications of facts without knowing what those facts are. It is out of such uncritical idealism as this that dilettantism and baseless generalizations are derived. I am certain that any person whom I would feel like following in any intellectual or social enterprise ought to know something, or at the very least he ought strongly to suspect something. I think that President Dodds of Princeton was correct when he recently said that "a cavalier attitude toward facts carried into later life dooms one to a second-rate career."

Although it is unsafe to attempt to settle the questions of 1934 in terms of the mid-Victorian era, it does, nevertheless,

remain true that those who went through the fact-learning college course of that time did possess a general level of intellectual power that is not inconsiderable. This does not prove or even indicate that a fact-learning type is the best type of education, but it does lead one to the conviction that it is not fatal to the development of a fine attitude toward things of the mind, and an intellectual capacity for doing things which some people would have us think is eliminated by attention to factual learning.

Surely no one will deny that we should have some means of finding out whether our students know anything. This may be accomplished either directly or indirectly. It is true that the older true-false form of question did place a considerable, perhaps an excessive, emphasis on the ability to recall facts, but the more recent tests, if carefully analyzed, show a strong tendency toward the intelligent use of facts in drawing conclusions. As an illustration, I would cite two questions from a paper in physics. On a new-type examination the following questions appear:

1. The approximate average distance in miles of the earth from the sun is (1) 50,000, (2) 100,000, (3) 150,000, (4) 93,000,000, (5) 100,000,000 .....( )
2. The approximate average number of miles per day the earth moves in its orbit is (1) 100,000, (2) 150,000, (3) 200,000, (4) 1,600,000, (5) 1,000,000,000 .....( )

The second question was violently assailed as being merely informational and of such a detailed and unreasonable nature that even a trained astronomer would not carry the exact figures in mind. It requires only a few moments of reflection, however, to realize that this criticism is not well founded. It is true that the first question, involving the average distance of the earth from the sun, is purely informational but of so simple a character that only 1 or 2 per cent of the students would fail to answer it correctly. The second question is not in reality informational at all but should be reasoned out if one realizes that the earth moves in a circular orbit and that it takes 365 days to rotate around the sun. The second question, therefore, is not at all fact finding but tests whether the student has any capacity for constructive thinking.

Certain recent social experiments in other parts of the world have initiated their educational programs on the assumption that all requirements, examinations and ratings are inherently bad and should go. They have sometimes announced an absolute reversal of all established tradition. This was true of Soviet Russia and anyone who may have sought inspiration and guidance from the Soviet plan will be interested in an address recently made by President Hopkins of Dartmouth College which seems to indicate that those who get their philosophy from this source should bring their facts up to date. President Hopkins says:

"I should like to refer to the frequent criticism, so vehemently made in the undergraduate press and recently repeated in popular magazines, in regard to the requirements in college curricula of disciplinary subjects requiring exact factual data, of some acquaintanceship with foreign languages and of the ranking system. The hypothesis is usually accepted that except for conservatism and addiction to established forms on the part of the colleges, such requirements would speedily be abandoned. Well, they were abandoned in the most radically experimental project ever undertaken educationally upon a large scale when the Soviet Union set up its system of universal education and founded this on adoption of the project method. What was the result? In a resolution adopted by the Central Committee of the Communist Party on August 25, 1932, the whole plan was declared ineffective and undesirable in that it did not give sufficient general knowledge and failed to teach the essential basic principles of specific subjects. The resolution prescribed a more thorough study of individual subjects, more time to be spent on mathematics, physics and foreign languages, and the reintroduction of examinations and the marking system. The recommendations of this resolution are now being put into effect."

I, for one, would be willing to accept the significance of the new-type examination even at its worst against the method, all too common in earlier times, of setting an examination in which the only hope of passing involved handing back to the teacher his own opinions on controversial questions. This point, then, seems to be only an imaginary danger.

It should be remarked that the construction of objective

examinations which do more than test factual material is an exceedingly difficult task, and one which should be entrusted only to the expert. If the average teacher tries to do it in the spare time at the disposal of most teachers, he will inevitably fall into the same unfortunate error that beset the earlier test makers. Here is a real danger in the testing program, namely, that in the interest of saving expense, locally made tests may be used to replace those more expertly and more carefully constructed. Locally made tests can never be comparable year after year, and whether the advantage of objective scoring is greater than the disadvantage of the subjective test, is a real question. It is inevitable that every teacher presents many points of view that are not covered by any test prepared by some one else. This means that, for actual school or college use, the bought test should always be used together with one locally prepared to meet local instruction. This latter form of examination may well emphasize the trends, movements and implications which the other test may not adequately include.

A third question often raised regarding the testing program is found in the fear that the tests have to do with only a part, and that the least important part, of the educational resultant of school work. Our tests in English, for example, do measure accomplishment in spelling, reading, vocabulary, and certain other elements. They go a certain distance in literary appreciation, but for the most part the acquisition of good taste, aesthetic attitudes, and the like are not touched. As a matter of fact, I doubt if we shall ever get measurements of these fruits of the spirit, or even whether it is desirable that we should. If and when we ascend the golden stairs and approach the pearly gates, it may be that our admission through those gates will be conditioned on the possession of those qualities, as measured by Saint Peter and his staff of experts. But for the present, the consciousness of virtue on one's own part, and the reputation for having it among one's fellows is about as far as we can go. The future may reveal some way of measuring these most precious elements of real education and culture, but there is no use in pretending that

we or any one else can do it now. In the meantime, let us be thankful for a half loaf since the whole loaf is beyond our reach.

Of course the total result of the testing machinery that we now possess may afford some implication regarding the possession of the more spiritual values. When we go to our physician for a physical round up, we do not expect to have him give a single test that will be acceptable as an index of health. We have, however, various special and partial measurements of blood pressure, pulse rate, blood count, and a dozen other measurements, and by looking at the resultant of all of them, one can reach a rough conclusion that one is in good health. But in my experience, one may feel wretched just the same. In the more complex field of the spiritual imponderables, one cannot expect at this stage of our techniques to obtain even as satisfactory a result as the physician can get. But, nevertheless, let us not throw away what we have just because we do not have more. It seems to me, then, that this is only half a danger.

So far as I know, the most conscientious objectors to the testing program assume that any testing program is intended to furnish objectives of instruction and as a consequence to mechanize instruction and to standardize it in accordance with the objectives set up in the offices of the test makers.

There are two observations that ought to be made at the outset. In the first place, it is only fair that an instrument should be used for the purpose for which it is intended, rather than for some other purpose, if one is to get any valid opinion as to its usefulness. No one has any business to say that a razor is not a good razor because it will not split wood, nor is it fair to say that a razor is not useful because it is possible for some misguided person to cut his throat with it. It is certainly true that the tests that we are considering are probably not sufficient for all of the examining that a teacher wishes to use. They are not intended to be all inclusive, or to test all of the elements of accomplishment in any course of study. And it is entirely possible for the teacher who is without ideas or skill to find that they condition his instruction. But if a

teacher is that unimaginative, it may be that even those tests afford a better mark to shoot at than nothing at all.

Second, some teachers claim that the use of tests standardizes instruction unduly, and transforms the free and natural development of the classroom work into a process of cramming for the particular test. Well, if there be teachers who do not wish anyone to find out whether their students know anything, it may raise the suspicion that perhaps they do not know so very much. I suppose, however, that the danger of standardization is, in the opinion of many serious persons, the greatest and most insidious one which attends the adoption of a testing program. In fact I recall the meetings that preceded the organization of the Cooperative Test Service. At that time the opinion was expressed that we ran just this risk, and that, if it was unavoidable, the whole project might do more harm than good. I am in a position to assure you that if the testing program does unduly standardize the educational process, it is contrary to the strenuous efforts of those responsible for its existence. But I do not for a moment think that it does.

It is difficult for me to understand the position of those who feel that the existence and use of an objective test strangles initiative on the part of a teacher and that a test should not be used unless it is prepared to examine on the exact material and method used in the particular teacher's classroom. Just because two different materials are measured by the same yardstick does not imply that they are identical fabrics.

Unless one takes the extreme position that all examinations are bad, I do not see how teaching can possibly be entirely divorced from the influence of the examination. Certainly if a teacher examines her own students, one inevitably has a situation where the instruction is aimed at the examination. Any competent teacher is rarely unwilling to gain any information possible from the way in which her students meet a test. It does not curb her abilities to teach students well to find out how they meet a test, even if it does cover a slightly different field from the one presented in the class. In fact, it serves the supremely important purpose of discovering how

much a student may have learned about the subject from other sources than the classroom teaching, and how he can relate the knowledge gained in other fields to this one. And the incompetent teacher is certainly no worse off in having something concrete to aim at than she would be in following her own sweet but sad will. I know that there is severe criticism of all widespread required examining systems, which the testing program certainly is not. But I still have to be convinced that even they do not, on the whole, taking the back districts along with the best schools, do more good than harm. There is nothing fair, however, in comparing a testing program such as organized by the Educational Records Bureau with any state system. A school in the state must conform to the one, but make take or decline the other according as it fits in with the needs of the school. Some of us like to have some means outside of our own imagination that will help us to determine whether, as the years pass, we are doing a better and better or worse and worse job. And the only way of finding out is by some kind of comparable test. If this be standardization, make the most of it. To me it seems only a mirage that will surely vanish the closer one approaches it.

The fact that the testing program tends to get rid of the system of points and credits and units, certainly the most vicious feature of standardization that curses our schools and colleges, seems a blessing to most of us. I am certain that loud huzzahs would immediately rise if, by means of any plan of testing, we are able to replace the Procrustean bed of fifteen units by a Simmons couch test of the real capacity and intellectual power of the individual. I shall not take the time to argue this point, it has been done so well by so many others. I have never met a person who was concerned with the furthering of the testing idea who was not enthusiastically and consciously headed away from units, credit, and points.

Perhaps the greatest single danger that attends the use of a testing program is the tendency on the part of test enthusiasts to trust too implicitly the results of a single test or group of tests which are given during the same testing period. The whole philosophy which underlies the testing program

involves what has often been called a moving picture of the whole educational career of the youth rather than a series of two or three snap shots. Consequently too implicit dependence upon any one test or any one group of tests given at about the same time runs into the same difficulty that the testing program is intended to avoid. Dean McConn has made it clear in various of his publications that only by continued and frequent tests can one overcome the embarrassment of the student in taking examinations and at the same time afford a body of material which is really reliable.

And now I come to the most important point in the whole matter. Unless the results of the tests are made the foundation and basis for a wise counseling service, the great opportunity which they afford is lost. If one is to organize a counseling activity which is real rather than superficial, the first step should be the careful and judicious administration of all pertinent objective instruments. Some one has remarked that failure to do this is like putting on a pair of well-shined shoes which do not have any soles at all. The shoes may look well to others but are not of any value, except a superficial one, to the person who wears them. I have often remarked that the testing program which is taken as inspired from on High and which is applied to the students unthinkingly and without reflection may do more harm than good. The combination of the wise man interpreting and counseling with the information from the testing program before him affords a situation which is not far from the educational kingdom of heaven.

HERBERT E. HAWKES,
Columbia University.

Problems of an Admissions Office[1]

INTRODUCTION BY DR. EUGENE R. SMITH

The next paper on the morning program is "Problems of an Admissions Office." I think sometimes those of us in the schools are inclined to think that we have the problem and the Admissions Officers sit on their thrones and make the trouble. We are going to hear the other side this morning and I think we shall find that we must have a great deal of sympathy with those in the colleges who have to meet the very difficult problems of admissions. I present to you Mr. Alan Valentine, Chairman of the Board of Admissions, Yale University.

ADDRESS BY MR. ALAN VALENTINE

AN ADMISSIONS officer should probably be seldom seen and never heard. If, outside the protected domain of his own office, he speaks at all, he should voice only urbane generalities, for anything he says may be used against him. He knows that his admissions system is not perfect; that it is certain to have flaws upon which an unkind critic can place a condemning finger. There is indeed little hope for him, for were he able to bring his admissions system to complete mechanical perfection, with no visible external blemish, he would, by the very achieving of mechanical perfection, have ignored the human element and given his system a dangerous rigidity.

Conscious therefore of the dangers into which I am about to plunge, I throw myself upon your sympathy. If my remarks were to please you all, they would hardly be worth your attention. Comments which would please some of you would almost certainly incur the disapproval of others. Opinions differ among you; there are probably as many potential admissions systems as there are individuals in this room. For

[1] Address at the Third Educational Conference, New York, November 1, 1934.

education, as you know, is a topic upon which every man offers freely an opinion, and college entrance is that part of education concerning which opinions become most vociferous and emotional.

Nor are we in this room wholly free from clamor and emotion upon this topic. Since strong conviction and humor are infrequent bedfellows, I suspect we are also somewhat lacking in lightness of touch in our discussions of admissions policies. At the very mention of them eyes flame, mouths grow tense, and voices become either strident or all too obviously restrained. The academic detachment and the respect for individualism upon which we pride ourselves desert us in discussions of required courses, intelligence tests, and entrance examinations. Few of us avoid becoming partisan defenders of a particular faith, or partisan exponents of a new reform or a favorite panacea. It is well that old faiths should be both defended and attacked, but in this very crucial period in our educational procedure one could wish that we might approach our duty with more detachment and more humor. Otherwise murder may be done, for the admissions officers of the universities, the chief victims of your enthusiasms and reproaches, are like new dolls disputed over by children—from very excess of affection they may be torn limb from limb, an arm to the conservatives, a leg to the progressives, and only a tuft of hair to the weakest!

This occasion provides me with an opportunity to ask questions rather than to answer them—to come before you humbly and ask that light be thrown upon several subjects which are important at least to university admissions officers. For several years we have listened to discussions of educational matters in these meetings and elsewhere—discussions characterized, as mine shall doubtless be, by a striking infrequency of humorous sallies. It is doubtless our slowness of apprenhension which still leaves some of us uncertain as to just what is in the mind of an occasional speaker. Before I disclose my own ignorance by the elementary nature of my questions, perhaps you will permit me to speculate for a moment upon the functions of a college board of admissions, offering in defense of the obvi-

ousness of my remarks that upon this subject it is better to be trite than nebulous.

The function of a board of admissions is to present each year to its university the best available collection of schoolboys with intellectual potentialities. I use the word intellectual advisedly, not being convinced of the wisdom or success of complicating the selection problem by placing great weight upon other qualities. One is impressed by those who talk of admitting boys because of outstanding character, but one wonders how it is done, unless one determines an individual's fine character by its similarity to his own. Nothing is more subjective than estimates of character. At schoolboy age it is uncertain and changing, and estimates of what denotes good character would doubtless vary greatly among the occupants of this room. It is obvious that in addition to demanding academic achievement or promise, an admissions officer must select boys who will conduct themselves with reasonable decency, but, in my own experience, the thicker the candidate's file with earnest praises of his character, the weaker his scholastic claims usually turn out to be.

Granting this premise for the sake of argument at least, how is one to select from all the applicants those of the greatest promise? Obviously one or more comparative devices must be used. The best known comparative devices, tested by the experience of time, which seem to operate with reasonable fairness in most cases, are these: (1) the school record, (2) the school's personal comment on applicant A compared with applicant B, (3) intelligence tests given to all applicants under similar conditions, (4) standard examinations given to all applicants under similar conditions. Most admissions officers use one or more of these devices; several use them all.

If all schools and all teachers were identical in ability and point of view, the application of these standard measuring rods would be relatively easy. But we know too well that the standards and procedures of schools and teachers vary. It is a thorn in the sides of admissions officers that schools are becoming less similar rather than more so, and seem likely to continue this troublesome divergence. What can the admis-

sions officer do? He must make each of his standard measuring rules flexible without altering more than necessary their length; he must vary the importance of each measure in accordance with the individual case, and thus attempt to secure a rough justice, and reach a decision (I stress the point) far less mechanical than many schoolmasters persist in believing.

How can liberality of judgment be achieved? An admissions officer may evaluate the school record roughly according to his opinion of the standards of that school. One can treat the schoolmaster's recommendation as a similar variable. Intelligence tests may prove the most constant of the four criteria, but it is probably a little early to depend upon them alone. Standard examinations, such as those of the College Entrance Examination Board, remain a device upon which some of us lean heavily, but any experienced admissions officer realizes that to their results should be ascribed a varying importance according as the school training has or has not been directed along the lines of entrance examination requirements. Other standard tests, such as those of the Educational Records Bureau, are assuming increasing usefulness in admissions work, but they could hardly be said to replace the College Board tests as standard *content* examinations.

Most of the criticism of colleges by "progressive" secondary schools has been aimed at the College Board examinations. It has been claimed that these tests have "regimented" the work of the schools, and also that the examinations are unfair to applicants from schools which do not prepare for them. Both of these criticisms are true (within definite limits), but it is amusing first to find the colleges accused of regimenting the schools by admissions requirements, and then to find many schools so little regimented that they pay scant attention to the standard college entrance requirements, and ask that admissions officers be equally free from such old-fashioned criteria.

It is upon this idea of regimentation that I turn to you for light. Regimentation is a common word today; it is raised against the government at the same time it is raised against the colleges, but it is amusing that the horror of *political* regimentation comes from those who call themselves conservatives, while the criticism of *educational* regimentation comes

from those who call themselves progressives. In politics opponents of the conservatives claim that they merely object to a kind of regimentation not their own—surely this will not prove true of the *progressives* in *education!*

Exactly what is meant by the protest against regimentation of the schools by college entrance requirements? Do the protestors want no regimentation at all in education, or merely another kind? Regimentation seems to me to mean the imposition by the teacher of certain requirements and standards not wholly palatable to the taught. If so, are these requirements and standards wholly to be abolished, or if not, abolished to what extent? Educational psychologists, to whom I defer in all humility, might call such regimentation *conditioning*—conditioning of the student by the teacher. Is this conditioning to be eliminated? If so, what will be the education of a schoolboy who is not conditioned at all by his education, but develops free from influence and untrammeled by requirements?

College admissions committees, through their requirements, do to a certain extent affect the work of the schools. This fact has not always been thought unfortunate; twenty years ago it was thought highly desirable. Colleges regiment the schools in the same sense that the top of a ladder regiments the bottom. To reach a certain high point, one places a ladder so that the top is as close as possible to the point to be attained. The lower rungs are essential in order to reach the top ones, but the position of the lower rungs is conditioned by those above them. In a sense the college, forming the top rungs, conditions inevitably the schools below it, but is it really the college that imposes restrictions upon the freedom of action of the climber? Is it not education itself—the desire to climb—that really constantly narrows and regiments the way of ascent?

Certainly our colleges and universities do not set admission requirements merely to annoy the schools, or even to impose on them the observance of a particular philosophy of education. The admissions requirements of a university represent merely the essential rung just below the college part of the ladder; a rung which in its turn is conditioned by the rungs

above it, the requirements and standards for the college degree, as well as those below it, the school preparation. A board of admissions tries to set its standards at the minimum which its faculty will regard as essential to the four-year college job in view. To alter admissions requirements so that they have little relation to the faculty's standards for graduation would be to mislead boys admitted to college. One set of standards depends upon the other, and a fundamental alteration in the standards and subject requirements of admissions would depend upon a fundamental alteration in the present conception of a university.

It would seem to be education itself that exerts a conditioning influence; if it did not condition it would not be education. The question is, should the conditioning come from the top or the bottom, from the university or the kindergarten? Criticisms of the present system, logically developed, would mean that the methods and subjects of the kindergarten, the aptitudes and dislikes displayed there, would largely determine the content and methods of the schools, which would in turn control the standards and courses of the university. Would those of you here who represent secondary schools like your own standards to be dictated from the primary schools? Progress in education, and indeed in civilization, seems to me to have all come the other way 'round—from the top down. Certainly a college or university with a sense of standards and a philosophy of education at all in accord with the experience of the past can take no other point of view.

The attack upon regimentation seems to be directed chiefly at the admissions requirements established through the College Board. If they were not established through the College Board, they would have to be established in some other way. But if college admissions standards are determined by college courses, and college courses are determined by traditional college educational philosophy, should not school reformers aim their attack directly at the real source of their troubles—the whole theory of university education in this country? This is the only way to get to the heart of the fault, if fault it be. And if the present philosophy of university education is to be destroyed, or substantially altered, along what lines should

it be changed? Is it not clear that to eliminate compulsory content requirements in the school, one must eliminate them in the university? Will the critics of regimentation tell those of us in college education if this is what they propose? If they propose to eliminate or greatly modify required standards for the university degree, just what do they expect to be the significance in the future of the university degree?

If this ground can be cleared, we shall know the real basis for the criticism of standard entrance examinations. If all conditioning of students, all regimentation in school and college is to go by the board, obviously all content entrance examinations may as well go too. But failing such a sweeping change in the universities, can we do without some standard rule which measures or attempts to measure not only intelligence but knowledge, not only aptitude but performance, not only character but rational discrimination? What standard measuring rule, if any, is it proposed to retain? Shall we discard the methods of the present, which, however imperfect, contain some wisdom of experience? Are not examinations, in some form, inevitable both in school and in life, if we are to measure progress? If this be so, is not the period which marks the end of school and the beginning of college a logical time for examinations?

Most schools, no matter how carefully or thoroughly they do their work, themselves feel the need of some means of verifying the opinion they have formed of a student's knowledge and ability. The college, too, finds some form of entrance examination a valuable corroboration of the work of the school, and of the work of an individual student in that school. It is a *verification* rather than a *determination*. Since most universities draw students from schools of different quality and methods, an admissions officer rightly turns to some standard examining body to verify the opinions he has tentatively formed from other sources.

There are many types of examinations, and the academic woods are full of a vigorous and interesting second growth. The subjective examination, which has been the criterion of the past, is being challenged by the newer objective type of examination. Neither type can tell the whole story. Each

has its special value. The English, who have been in the educational and examining game longer than we, are still using the subjective or essay type of examination—at least at Oxford and Cambridge, whose product for several hundred years has not been considered wholly unsatisfactory. Dr. Learned of the Carnegie Corporation, himself an advocate of experiment in American education, recognized the merits of the older essay type of comprehensive examination, when he said:

"It is clear that the English teachers consider a final general examination as an integral part of their educational system. What in this country is variously regarded, often involuntarily, as a necessary, or an unnecessary, evil, becomes with them the main pillar of the educational process. It is much more than an inducement to hard thinking, important as that is. A clear scholastic goal ahead is believed to encourage, as does nothing else, the conviction of responsibility and seriousness of purpose that are indispensable for the moral as well as the mental training of intellectual youth. Term tests and marks are universal there, as here, but there they are used only for estimating and recording progress and for assigning prizes and class standing. To substitute them on the installment plan for the requirement that a pupil actually set up and grapple with an exacting intellectual task that justifies his claims, is like proving your fitness to run a two-mile race by running half a mile each year for four years, and adding up the results."

The attitude of our examining colleges is essentially the attitude outlined by Dr. Learned. In the universities, the most significant educational move of the past decade has been the development of honors and seminar work, with a high degree of individual responsibility upon the student, who works toward preparation for one or more final comprehensive examinations. These are the chief criteria of his fitness for a college degree. The trend of the leading colleges is toward, rather than away from, emphasis upon the comprehensive written examination. So I ask again, "Do critics of our present entrance examinations wish us to abandon them, or to improve them?" If the former, we must ask to be supplied with an adequate substitute. If improvement of the present examinations is all that is required, we have but to turn with one accord to the College Entrance Examination Board. I suspect that the next few years will show the policy

of that body to be more liberal and progressive than has sometimes been predicted. If a serious and cooperative effort to make those examinations what you would like them to be fails, then and not until then discard them and begin again.

Who should determine the answers to the questions I have asked? Is not every serious teacher and administrator in school or college entitled to contribute his opinion? Should we let the decision go by default to a relatively small group of technical experts, no matter how able, in their own field, they may be?

The past decade has seen the rapid development of objective measurement and psychological testing. New and challenging has been this development; it has thrown much new light from a fresh angle upon problems of education. Nothing but good can come from this new body of knowledge and hypothesis, provided we can retain our sense of proportion in merging old wisdom with post-war modernism in education. Wise in their own fields though our measurers and psychologists are, they must surely shrink from guiding the whole course of school and college educational philosophy alone. Should the surveyor determine the general human aspects of the city plan? Shall beauty be determined by Bertillon measurements or educational thought by their equivalent? Rather is it not true that some parts of our present liberal arts education may never be capable of objective measurement? To what extent are those who are engaged in objective measuremeant qualified or desirous of assuming the whole burden of national educational reform? Such experts have contributed much of value; they will doubtless contribute much more. Their most valuable contributions seem to me to be in their own field. The devoted cultivation of that field will enable them to throw much light upon education as a whole. But (to answer at least one of my own questions), the schools and colleges of the future can best be erected upon the foundations of the present and the past. In our delight at the discovery of new wisdom we must neither create new dictators nor discard hard-won ideals.

ALAN VALENTINE,
Yale University.

Accreditation of Secondary Schools in the Light of the North Central Association Report

INTRODUCTION BY MR. FREDERICK J. V. HANCOX[1]

First of all, I should like to express my own sense of honor at having been asked to preside on this occasion, and also the thanks of the organization which I represent, to the various organizations that are the sponsors of this meeting today and tomorrow. And I should like to take the opportunity to make an announcement for my own organization, if I may: The Secondary Education Board will hold its annual conference on February 15th and 16th at Andover School, and we should be very glad if all of you who have any interest whatever in matters which concern the schools of our group would be present.

One of the matters which will come up for discussion there will be of interest, I think, to a good many of you. The College Entrance Examination Board is, for some reason or other, a perennial bone of contention. When people have nothing else to say or to think about, they take slams at that venerable institution and think that they are making themselves interesting. They may be, but they are probably not saying anything very valuable. With that in mind, we have arranged that at the English and French and Mathematics and Latin subject group meetings at our conference one of the topics for discussion shall be the present reaction of teachers in the secondary schools that are in our membership towards the College Board policies in these subjects. If the chairmen of these group meetings can bring the discussion to any definite point, those conclusions will be phrased in the form of recommendations from the Secondary Board to the College Entrance Board. That probably will be of interest.

[1] Chairman, Secondary Education Board.

In educational matters, as in all other intellectual matters, waves of opinion sweep over the public. We think, of course, of ourselves as being very superior intellectually to any one group of people in the land. We don't announce that feeling, but we think so nevertheless; yet we are just as subject to fashion in thinking as anybody else. One of those fashions lately has been a tendency to move away from the use of examinations as the main criterion for college admission, and most of us think that that is a very wise movement. If, however, we are to move away from the examination criterion for admission, we must move toward something else, and one of the other things that we must move to is college certification. We cannot have certification unless the schools that are going to certify are of the right sort, and the colleges cannot know whether those schools are of the right sort or not without a proper system of accrediting. So we find that the address that is scheduled for this particular time is quite in harmony with the first two addresses that were given this morning.

My task of introducing Dr. Zook to you is both a very pleasant one and an unnecessary one. We all know him. We have all recognized his work, we have read things that he has written, we have all heard him speak on numerous occasions, and we know, therefore, that he is most qualified to speak on this subject that is announced for him, or on any other that lies within his field of thought.

He is a man of very wide experience as a student, as a teacher, and as an administrator. He has been associated with the state university, with the city university, with the privately endowed university. He has, as you know, been lately Commissioner of Education of the United States, and he is now Director of the American Council on Education. Surely no wider or more useful experience could be imagined for a man than that.

It gives me great pleasure indeed to introduce to you, if it is at all necessary, Dr. George F. Zook, who will speak to you on "Accreditation of Secondary Schools in the Light of the North Central Association Report."

ADDRESS BY DR. GEORGE F. ZOOK [1]

IT WAS my privilege one year ago at this time to summarize for this conference some of the most important aspects of the movement for a thorough-going change in the accrediting of colleges and universities as represented in the work of the commission which has been studying this problem for the North Central Association. At that time I endeavored to point out that the standards and accrediting procedures in use during the last quarter of a century had served a very useful purpose in protecting the public against inferior institutions and in stimulating others to better accomplishments, but that for some years it had been evident that present standards and accrediting procedures were in great need of radical revision. Although the old standards may have been intended to assure institutional quality, they are couched almost wholly in terms of minimum quantitative requirements, as, for example, 8,000 books in the library, 8 departments and 15 units of admission. The problem of the North Central Association was, therefore, to find a qualitative description of a higher institution and more effective means of identifying the level of attainment of an institution in terms of the new description.

Although much had been accomplished a year ago, no one could be at all certain how successful the North Central study would be. I am happy to report to you today, however, that, after listening to an extended report from the committee which had charge of the study, the Association last April voted unanimously to abandon the traditional standards and accrediting procedures which had been built up so assiduously during the last quarter of a century and to undertake the responsibility of accrediting higher institutions on an entirely new basis. I believe that the decision is fraught with the utmost significance, not only to the higher institutions of the North Central area, but possibly also to the schools and colleges of the entire country. If so, it will be worth reviewing here today.

---

[1] Presented at the Third Educational Conference, New York, November 1, 1934.

The first task in the investigation was to ascertain through an extended study of 57 institutions the relation between the old type of specific quantitative standards on the one hand and the quality of an institution on the other. In a few cases, we were able to find a high degree of relationship between, for example, the quality of an institution and the per capita cost when weighted according to the size of the enrolment. In almost all other instances, however, the correlations were low. Through a most elaborate statistical process we were able to prove to our complete satisfaction that, with certain exceptions, the ability of an institution to meet standards of quantitative character is no great assurance of the level of its performance.

On the other hand, there was generally a much higher relationship between the rating attained by an institution under the new qualitative criteria which were developed as a result of the study and the ratings attained by the same institution where other quality considerations evidently played an important part. In this way the committee was able to select those types of information which when combined in composite scores bore a trustworthy relationship to the quality of an institution and which at the same time were feasible in the accrediting process.

You will naturally wish to know what processes were used to rate institutions qualitatively. In fact this process in itself seems to be the very thing that we were seeking. In the first place, an extended testing program was engaged in and institutions were rated according to each test and according to a composite test score. In the next place, extended information involving both factual material and judgments as to effectiveness were brought together in a composite score for each institution under such headings as faculty, administration, library service and student personnel service. These results showed rather clearly the quality of performance of the institution in each such particular field. Finally, the men who engaged in the study, after visiting the institutions and after bringing together extended information, rated the institutions in terms of their effectiveness according to their several objec-

tives as they understood them. It was a process of measurement through what I call refined judgment. After an extensive tryout of various combinations, the committee was able to select those procedures of evaluating an institution which seem both feasible and dependable.

In this connection it is to be remembered that certain processes may be entirely valid but not feasible for accrediting purposes. For example, a comprehensive testing program may be very helpful in determining the effectiveness of an institution, but as yet it scarcely seems feasible as an accrediting process. On the other hand, an institution may well be expected to have a testing program in operation which is suited to its needs and field of operation.

The results of this extended study will be found in a series of volumes now in process which we have called the monograph. It is the first and only extended attempt in this country to study scientifically the validity of quantitative standards on the one hand and, on the other, the possibility and feasibility of substituting for them criteria of a qualitative character.

The fundamental basis of the new accrediting policy adopted by the North Central Association is that the qualities or characteristics of an effective college must be stated in general terms. Such criteria apply equally well to all types of institutions. They offer no inhibiting influences relative to the organization of the institution. They serve, indeed, as an ideal to be progressively attained.

In view of this radical departure in policy, there seemed no further need to retain even the word standard. It seemed to connote too much in the way of uniformity, quantitativeness and satisfaction with minimum effort. We have instead "a statement of policy" relative to the accrediting of institutions of higher education. No one can appreciate fully the completeness of the departure from the old order without examining this document in some detail. First of all, it encourages individuality in institutions, but it calls upon each of them to state clearly its objectives in general education, in the development of students as individuals, and in occupational lines, if

any. Each institution is then to be judged in terms of its chosen field of work.

Next, one is struck immediately with the absence of old landmarks. Gone is all reference to admission units, semester hours, eight departments, minimum endowment, 8,000 books in the library, size of classes and Ph.D. degrees for the faculty. It is a complete sweep. If you will keep in mind the old type requirements as I quote several paragraphs from the new statement of policy, you will better appreciate the radical departure which is now being attempted.

FACULTY

An institution should have a competent faculty, organized for effective service, and working under satisfactory conditions.

LIBRARY

The library should provide the reading facilities needed to make the educational program effective, and there should be evidence that such facilities are appropriately used.

INDUCTION OF STUDENTS

An institution should admit only those students whose educational interests are in harmony with the purposes of the institution and whose abilities and previous preparation qualify them to pursue the studies to which they are admitted.

FINANCE

The institution should provide evidence of financial resources adequate for and effectively applied to the support of the educational program.

The next noteworthy change is the addition of several criteria which undeniably describe better an effective institution of higher education than some of the old quantitative standards. Some of these new statements are as follows:

CURRICULUM

The curriculum of an institution should contain the subject matter offerings implied by its statement of objectives. In

general, these offerings include provisions for general education, advanced courses when the purposes of an institution require such offerings, and special courses appropriate to the specific objectives which the institution claims as among its functions.

INSTRUCTION

An institution will be expected to show a sympathetic concern for the quality of instruction offered students and to give evidence of efforts to make instruction effective.

STUDENT PERSONNEL SERVICE

The student personnel service of an institution should assist students to analyze and understand their problems and to adjust themselves to the life and work of the institution.

ADMINISTRATION

The administrative organization should be suitable for accomplishing the objectives of the institution. Adequate provision should be made for the performance of all administrative functions by a personnel competent in their respective lines of activity.

It is evident at once that these statements are not specific but general in character. Unless one wishes to return forthwith to the old situation they could not be otherwise. On the other hand, each of the characteristics of an effective institution is usually elaborated in the statement of policy, as for example, as follows:

STUDENT PERSONNEL SERVICE

"Consideration will be given to the means employed by an institution to assist students in the selection of courses and curriculums, in solving immediate academic problems, in furthering their scholastic development, and in making suitable vocational choices and preparation. Attention will also be given to the practices of an institution in counseling students about their health, their financial affairs, and their intimate personal affairs. The students' relations to extra curriculum activities will also be studied. The practices of an institution in the pro-

vision and control of health services, in the housing and boarding of students, in the management of extra curriculum activities, in the control of student conduct and in financial assistance to students will be considered."

These short explanations are in themselves helpful in obtaining a more definite idea as to what is meant by each of the criteria. They serve equally the college administration and those who may be called upon to pass judgment upon the effectiveness of the institution.

It was felt, however, that there should be in the hands of the colleges a further elaboration of the various characteristics of an effective institution. Hence, a manual has been prepared. This document, which thus far is in mimeographed form only, is proving to be exceedingly useful in further elaborating the statement of policy. In many ways it serves as a textbook of suggestions which have been found to be helpful to college and university administrators. Thus, while the manual is not at all intended as a collection of specific requirements under the primary criteria, it answers the natural demand for a fuller statement relative to the meaning of the several criteria.

Another principle on which the committee has laid great stress is the fact that, no matter how important one of these characteristics of an effective institution may seem to be, it will not be regarded as of final importance. In other words, a low rating in no single aspect, or even in several of them, necessarily precludes an institution from consideration. Finally, no attempt has been made to evaluate the relative importance of each aspect so as to reach any total mathematical score. Instead a pattern map has been prepared covering 72 different aspects of an institution, themselves often combinations of various types of specific information and numerous judgments. On this pattern map have been placed the pattern lines of the two institutions among 57 which the committee rated highest and lowest respectively. The advantage of this scheme is that both the officers of the Association and the administrators of a particular institution can get at a glance a total pic-

ture of the institution. The best of them have some weaknesses. The most inferior have some strength. Both of them will be evaluated in terms of their total pattern, and both of them can easily select the most obvious places for self-improvement.

This leads me to emphasize again a point which I mentioned in the discussion last year, namely, the increased service which the accrediting agency may render in constantly stimulating institutions to improve themselves. We have usually thought of the accrediting agencies as being the stern guardians of some door which admitted, by doubtful passwords, institutions into the company of the elect. I believe that through improved processes this function must still be exercised, but I am also sure that you will agree with me that there is no college or university in this country so excellent but that it may not be improved in a hundred different ways. Complacency is a dreadful disease which threatens all our social institutions, including the institutions of higher education. If the accrediting agency can hold up a mirror before higher institutions in which each may see itself, it will provide a powerful incentive for continuous self-improvement.

I do not know whether the effort of the North Central Association to substitute a new statement of the characteristics of an effective institution for the quantitative standards of the past will meet all of our expectations. Probably not. Of one thing I feel sure, however, and that is that other accrediting agencies, both regional and professional, can no longer continue complacently to depend on the old type of standards and meager procedures, and that upon them rests the same solemn responsibility as upon the North Central Association to make a serious attempt to substitute more dependable methods of identifying the quality of an institution.

In this connection, it is a distinct pleasure for me to call your attention to the fact that this challenge has already been taken up by the secondary schools. A committee representing all of the regional accrediting agencies and the New England Association of Colleges and Secondary Schools has been formed and is now hard at work with limited resources in

laying the ground work for a serious attack upon this problem in the realm of secondary education.

How much we do need such a liberation from old methods in the accrediting of secondary schools! If the old standards for the higher institutions were wooden, those for the secondary schools are forged out of something more stiff and unbreakable. The very number of the secondary schools has tended strongly to mechanize all procedures in accrediting. Hence, among the secondary schools variation has been more of a sin than among the higher institutions with little opportunity to determine what its effect might be upon the character of work done in the school. Yet, as from year to year quantitative standard has been added to quantitative standard, the secondary schools have been enrolling an increasing proportion of the age group from which high school students are drawn, until now it is estimated that nearly two out of every three young people of high school age are actually enrolled in high school. With such a variety of student ability, objectives, background and characteristics, it ought to be apparent that as educators we can no longer continue complacently to use outworn standards and procedures, which, as in the case of the higher institutions, never had the slightest scientific basis.

I express the ardent hope, therefore, that in your several capacities you will render this new national committee representing the secondary schools every possible assistance. It is engaged in a most important piece of work, the significance of which should be far greater than anything which has so far been attempted along this line.

In this connection, I am tempted to call your attention to what the British do in the accrediting of secondary schools. The situation is not, of course, exactly parallel, but it is substantially so. In England of course the term "secondary school" is used in connection with those schools which are academic in character and which prepare young people for admission to the universities. The Board of Education has for a number of years issued a series of regulations on the basis of which grants are made by the national government

for the maintenance of the secondary schools. In setting up these regulations, the Board of Education has fallen into several familiar errors, one of the worst of which, however, our agencies for the accrediting of secondary schools have never committed, namely, the definition of the curriculum as follows:

"Except with the previous permission of the Board, adequate provision must be made for instruction in the English Language and Literature, at least one language other than English, Geography, History, Mathematics, Science, Drawing, Singing, Manual Instruction in the case of boys, Domestic Subjects in the case of girls, Physical Exercises, and for Organized Games."

While this is a broad platform, there are obvious deficiences in it which any school man here could name, and it includes subjects which are often questioned for inclusion in all high schools.

Another requirement states that "the minimum qualifying standard of an entrance test and the arrangements for exclusion must be the same for all pupils." Obviously, the English secondary schools are not intended to be child centered.

The regulations also contain the following requirement: "The number of pupils taught together at one time must not without the concurrence of the Board exceed 30, and must never exceed 35." All of you are fully aware that innumerable studies carried on in this country in recent years fail to justify a class size standard.

On the other hand, many of the British requirements for secondary schools are written in general terms, as, for example:

"Every school must be kept on a satisfactory level of efficiency. . . . It must be suitable as regards character, management and financial position . . . must be governed and conducted under adequate and suitable rules, and the number of pupils must be sufficient for economical and effective organization."

"The teaching staff of a school must be suitable and sufficient in number and qualification for providing adequate instruction in each subject of the curriculum."

In other words, many of the requirements of the British Board of Education do not go so far in detailed definitions as is usual here in America, and there is, as Dr. Kandel has well pointed out in his book on Comparative Education, "much elasticity in curricula, subject only to the fundamental principle that the school course make effective provision for the development of bodily and mental faculties on broad human lines in the pupils who are to be the citizens of the future." The words "adequate," "sufficient," "effective," "satisfactory," and "suitable" occur over and over again, especially with reference to physical and external facilities. One immediately suspects that the committee of the North Central Association drew upon this list of adjectives in its new statement of policy for higher institutions. I assure you, however, that such was not the case, but I am very glad that British experience with general standards, in part at least, supports the new trend in accrediting in this country.

My friends, the whole issue relative to the accrediting of schools and colleges in this country is a chapter in the eternal struggle between the principles of individual liberty on the one hand and social responsibility on the other. Neither of these principles can be accepted completely as a charter of action. The proper course of procedure always lies somewhere between these two extremes. It depends on the competence of individuals and organizations to use liberty, upon the character of problems which face a people at a given time and a host of other considerations. But of one thing we may be sure, namely, that any social organization including schools and colleges must and should come in for constant review. Therefore, it is up to those of us who are interested in the education of our people to see that the evaluation of the schools and colleges is undertaken by those who are competent to do so and that they use criteria and methods which are both valid and stimulating.

GEORGE F. ZOOK,
American Council on Education.

The College Physics Testing Program and Its Significance for Guidance in Secondary Schools[1]

INTRODUCTION BY DR. BEN D. WOOD

One of the most gratifying aspects of this conference to those who have been in charge of arranging it is the large representation that we have enjoyed from the colleges as well as from the secondary schools. One of the most interesting developments in the guidance and testing work of the last few years is the increasing use of comparable tests in colleges, and of these one of the most interesting is the experiment of last year that was engineered by the Test Committee of the American Association of Physics Teachers. We have been very fortunate in securing the services of one of the members of that committee to tell us about the results of the college physics testing program.

Dr. Palmer of Haverford College needs no introduction to this group, and without taking more time, therefore, I present Dr. Palmer, who will tell us about the Physics Testing Program carried out under the joint auspices of the American Association of Physics Teachers' Committee on Tests and the American Council Committee on Educational Testing.

ADDRESS BY PROF. FREDERIC PALMER, JR.

TWO years ago the American Association of Physics Teachers appointed a committee to undertake the devising of tests designed for use in connection with the course ordinarily designed as "General College Physics;" namely, a course covering the field of General Physics in a more thorough and detailed manner than is done in "High School Physics." The committee felt that it would be pos-

[1] Presented at the Fourth Annual Meeting of Institutional Members of the Educational Records Bureau, New York, November 2, 1934.

sible to construct tests which might be widely used, since the content of the course in General Physics is much more uniform the country over than that of any other course in Physics. Last year, with the help of the American Council on Education, nine tests were published and distributed to participating institutions, one each in Mechanics, Heat, Sound, and two each in Electricity, Modern Physics, Light. The time allowed for each group of three topics was an hour and fifty minutes, and the questions were of the multiple choice objective type which could be scored rapidly by the aid of a stencil. The scores have been collected, tabulated and studied, and the committee's report has been published as a supplement to the September issue of *The American Physics Teacher*, the journal of the Association of Physics Teachers. This, in brief, is the testing program about which I wish to speak in some detail.

Purpose.—The purpose of the testing program, as stated to participating institutions by the committee, was in part as follows:

"We recognize that any attempt to evaluate achievement is surrounded with dangers . . . but the attempt, if undertaken strictly from an experimental standpoint, is enticing. . . . We believe that the subject matter of physics itself and the traditional course examinations afford an excellent point of departure for the kind of survey here suggested, and that the principle of measurement so fundamental to physics may be applied advantageously to the results of course instruction in the field. Recent nation-wide testing programs conducted under the auspices of the American Council on Education have disclosed the fact . . . that enormous variability obtains in all colleges on science, language and culture tests, so that even the best colleges have some poor students and the poorest colleges have some very good students. . . . The inference is that similar differences may obtain in physics. If these differences are shown to exist, many interesting and helpful suggestions may follow without threatening the art of teaching college physics with the deadly blight of standardization."

President Karl T. Compton commented upon this proposed survey of college physics, in part, as follows:

"It is reasonable that this new venture is but the first of a series which will stimulate interest in and improve the quality of the teaching of college physics. . . . Being unofficial and optional, it does not curtail the freedom of any school to set its own standards and give its own examinations. . . . Speaking for the American Institute of Physics, I am sure that this new move will be generally approved and its broader educational results watched with interest."

The following are some of the objectives which the committee had in mind: (1) the establishing of a national norm by comparison with which the standing of any given physics class could be rated as high or low; (2) the inquiry into whether what students know is identical with what they have been taught; (3) the influence of prerequisites, number of hours spent in lecture and laboratory, textbooks used, and, in general, formal educational machinery, upon group differences in performance; (4) the question of large or small variation among individual students apart from formal requirements and classroom procedures.

It may be well for me to state at once that, in spite of the limitations of the survey and the fact that only tentative conclusions should be drawn from the present data, the committee was able to arrive at two fairly well-established conclusions; namely, (1) "that less confidence should be placed in prerequisites, formal classroom and laboratory procedures, textbooks and the like; (2) that more effort should be directed to individual diagnosis and to providing opportunity for self-initiated and self-propelled study, for which formal recognition might well be given."

These are important conclusions which might well be equally applicable in other subjects than physics, and if means were provided for carrying them out effectively the whole lockstep course-by-course credit system, so loudly decried by some of our educational critics, should be broken down and replaced by one in which we supply not only one pound of work to the one-pound man, but also ten pounds of work to the ten-pound man. Unfortunately there are difficulties in the way of providing such an opportunity for self-initiated and

self-propelled study, both at a large university and at a small college. In the former case the large number of students per class puts careful selection and individual attention out of the question, and in the latter case limited financial resources often cramp the facilities which should be placed at the disposal of students otherwise fitted to pursue a self-propelled project not included in the regular curriculum.

Participating Institutions.—One or more of the nine published tests was used by 355 universities, colleges, junior colleges and technical schools scattered over 44 states. This represents a total participation in at least one part of the program of something like 13,000 students, who thus provided data from which it should be possible to draw not unreasonable, if still tentative, conclusions.

Nature of the Tests.—Each test contained a total number of questions which the committee considered to exceed the number that an ordinarily good student could answer satisfactorily in the allotted time, and it was explained to the students that they were not expected to answer all of the questions.

Each question, statement or problem was followed by either four or five choices, the most nearly correct of which was to be checked by the student.

In order to discover the content of the course in General Physics, a number of the more popular textbooks were analyzed and questions were included on those topics only upon which the texts showed a general agreement.

About twice as many questions were drawn up as it was thought could be used, and were tried out upon a representative group of students. Only those were ultimately retained which the results of this preliminary trial proved to be satisfactory, both as to difficulty and as to validity. To be "valid" a question must be answered correctly by a majority of the students who make high total scores, and incorrectly by a majority of those who make low total scores.

After agreeing upon a tentative set of questions for the first test to be published, that in Mechanics, the committee felt the need of further advice. Thus it came about that each

member submitted these questions to five of his professional friends, whose careful criticisms proved of value in establishing the test as one the content and character of which would be likely to prove satisfactory to physics teachers all over the country.

In each of the topics, Electricity, Modern Physics, Light, the committee constructed two different but equivalent tests; that is, tests of approximately equal difficulty and validity. Thus one test could be administered at the beginning of the semester and the other at the end of the semester; hence the difference between the scores achieved would measure the *gain* over a period of one semester. Although comparatively few institutions participated in this pre-test post-test part of the program, the results obtained were most interesting.

In the tests covering the three second semester topics, there was a total of 98 questions, thus giving an average time allowance of slightly more than one minute per question. During this minute the student had to read the question and five possible choices, grasp their significance, make any necessary calculations and check the correct answer. The time allowance was more than sufficient for those questions which involved mere factual knowledge, but less than sufficient where reasoning and numerical calculations were involved.

The committee felt that in a subject like Physics factual knowledge and reasoning ability are about equally important; hence approximately half of the questions were of one type and half of the other. Since many teachers have questioned the ability of the objective type of question to test reasoning ability, I shall illustrate each type of question by giving the following examples from these tests:

Chiefly Factual Knowledge

1. An oil which spreads over the surface of water does so chiefly because—

(*a*) Gravity tends to flatten it
(*b*) The surface tension of water is greater than that of the oil
(*c*) Oil always tends to form films
(*d*) The surface tension of the oil is greater than that of the water

2. The basic principle which explains the distribution of heat in hot air heating systems is—

(*a*) Decrease of air density with increase in temperature
(*b*) The low specific heat of the incoming air
(*c*) The high kinetic energy of molecules of heated air
(*d*) The transfer of energy in the form of waves

3. The core of a good transformer is laminated in order to—

(*a*) Eliminate hysteresis losses
(*b*) Keep secondary current in phase with primary current
(*c*) Lessen eddy current losses
(*d*) Keep frequency of secondary current as near as possible to that of primary current
(*e*) Make it possible to cool the core more rapidly

4. A white ceiling aids in room illumination by—

(*a*) Refraction
(*b*) Deflection
(*c*) Diffuse reflection
(*d*) Absorption
(*e*) Diffraction

Chiefly Reasoning Ability

1. If "g" is 32 ft. per sec.^{2}, a body weighing 8 pounds, after falling freely from rest for three seconds, acquires kinetic energy of about—

(*a*) 1,150 ft. lbs.
(*b*) 36 ft. lbs.
(*c*) 36,900 ft. lbs.
(*d*) 18,400 ft. lbs.
(*e*) 2,300 ft. lbs.

2. A manufacturing plant with an over-all efficiency of 15 per cent. uses coal which furnishes 12,000 B. T. U. per lb. Given 2,540 B. T. U. equals 1 horse-power hour, the coal required per horse-power hour is—

(*a*) 6.06 lbs.
(*b*) 1.1 lbs.
(*c*) 1.4 lbs.
(*d*) 2.3 lbs.
(*e*) 16.5 lbs.

3. An electrical circuit consists of a flat horizontal coil of several turns and a sensitive galvanometer. A small bar magnet is dropped from some distance above the coil so that it passes through the coil with its axis vertical. The induced electromotive force in the circuit—

(*a*) Reverses in direction as the center of the magnet passes the plane of the coil
(*b*) Changes direction four times during the fall of the magnet
(*c*) Is in the same direction during the entire fall of the magnet
(*d*) Cannot be zero while any part of the magnet is in the plane of the coil
(*e*) Increases in magnitude until the center of the magnet passes the plane of the coil

4. On the focusing scale of a large camera the distance on the tube between the points marked "20 feet" and "30 feet" when compared with that between those marked "90 feet" and "100 feet" is—

(*a*) Dependent upon the direction in which the tube is moved
(*b*) Dependent upon the size of the object
(*c*) Less
(*d*) The same
(*e*) Greater

It will be seen that the questions in the first group require something more than the mere recording of acquired information, while those in the second group demand the ability to reason accurately.

Those teachers of physics who have tried to construct objective tests for their own use frequently have been disappointed with the results, and hence have concluded that objective tests are bad, whereas in reality the trouble may have been that the questions were not stated properly, were ambiguous, or too hard or too easy. I cannot emphasize too strongly that the success of this Physics Testing Program, as evidenced by correspondence with the many users of these tests, has been due to the cooperation of Prof. Ben D. Wood, of the Cooperative Test Service, and Dr. F. S. Beers, Secretary of the Committee on Tests of the American Council on Education, two men skilled in the technique of testing, with the five subject matter experts who make up our committee. Thoroughly successful tests could not have been constructed by either group without the aid of the other.

Results. National Percentiles.—From the data collected a table of national percentile ratings has been worked out and published in the committee's report. This table shows the

percentile which corresponds to each score on each of the six topics tested and on the total of the first semester group and of the second semester group. Thus a student who scored 30 out of a possible 48 in the test on Mechanics finds that his national percentile rating is 90; that is, 90 per cent of the 8,000 students who took this test scored 30 or less. Fifty per cent scored 18 or less, whereas a teacher whose class achieved an average score of 66 out of a possible 91 on the three first semester topics finds that this corresponds to a percentile rating of 95. Thus each teacher can use the data from his own class and determine both individual and class percentile ratings, but those scores which have been published by the committee are referred to by number and not by the name of the institution as in the following quotations from that report.

Variability of Achievement (Fig. 2)

"The fifteen colleges in Fig. 2 were chosen to represent the whole range of medians from highest to lowest and all types of institutions reporting results in time for inclusion in the report. The fifteen institutions include engineering schools, universities, four-year colleges, junior colleges and teachers' colleges. Fig. 2 shows two types of variability; the first is the variability of median scores of students in individual colleges. The differences in student performance are very large indeed. So far as the functions measured by the combined M, H and S tests are concerned, the lowest group of colleges has almost nothing in common with the three or four colleges at the high end of the scale. However, the variability within colleges suggests that adjustment of course and pace to the needs and abilities of individual students must be made within the college, despite mitigation of the problem by progressive pre-college selection and guidance of students. . . . It is obvious that the students in some colleges learn much less physics of the type measured by these tests than those in other colleges. In college 15, for example, all of the students are below the national average, while in college 1 about 80% are above. Part of these differences may be due to curricular differences; but even if these differences were based on completely valid tests for all colleges, it would still not mean that the low-average college is necessarily inferior to the high in its *educational* contribution. Even though the achievement of

its students *in physics* may be clearly inferior, the college may be giving these students other experiences more valuable to them, in view of their abilities, interests and social needs, than mastery of physics."

College Averages (Table IV, p. 138)

"Any college, by referring its average scores to this table, may identify its relative position among the participating groups.

"The fact that variability of scores within each college group is much more striking than differences between groups makes it necessary to interpret any distribution of college averages with caution. . . . A physics department should not necessarily regard itself as superior to any other merely on the basis of a higher average score on the physics tests. The whole trend of the present study suggests that the best grounds for the relative ranking of departments might well be in terms of how well they diagnose the needs of students, how well they provide opportunity for the progress of their students at self-determined, differential rates and how adequately they define and attempt to meet their avowed objectives. Hours and units and credits and average scores furnish an excellent basis for self-study but are not remotely adequate for ranking the departments in order of merit for accreditation and like purposes. . . . The work of a college cannot be fairly judged except by taking into account the abilities and total educational needs of its own student groups."

Gains in Achievement (Fig. 4, p. 140)

"The test results of those colleges administering tests before and after study were analyzed to discover the average gain of all students, without regard to type of school, and of student groups in colleges making the largest and smallest gains.

"The amount of gain within single colleges varies markedly. These differences, however, are not subject to direct comparison, since the abilities, aptitudes and needs vary from college to college. The average gain for all students is of general interest; the gain of any one is of interest only to that college. . . . Within the same class, some students will make tremendous gains in achievement, others will make little or none. Those deviations which are most marked may be investigated with a view to further clinical diagnosis and educational guidance. But the average gain for the school is most significant when it is taken as the point of reference for the interpretation of the individual gain.

"In this connection, it is difficult to exaggerate the importance of the variability of scores in the pre-study groups. Teachers in physics and other subjects are only too painfully aware of the variability in post-study groups because there are too few classes in which some students are not "flunked;" but not many teachers are clearly aware of the highly important and encouraging fact that a few students at the *beginning* of a course are already able to equal or exceed the average of the whole class at the *end* of the course. Fig. 4 shows that in both E and Mp one student *at the beginning* secured a score which was achieved only by the highest 1% of the class *at the end*. In E about 5% of the pupils secured pre-study scores above the post-study average score of the entire group that took the tests.

"The advantages of early identification of such promising pupils are obvious and it is gratifying to note that during the last few years the search for and special study of such pupils has been a growing concern of an increasing number of teachers. Of course, no single test can be expected to give a fully trustworthy index of even one of the many qualities required for a productive career in physics, but any student who *before* formal instruction secures a higher score than the average student secures *after* formal instruction is at least worthy of being studied. Some of them very richly reward the teacher who vouchsafes them special attention and encouragement.

"The students at the other end of the scale also merit special attention. Some of them after taking a full course, at the expense of the state or of their parents, are still in the score-range of the lowest 1% of pre-study norms. Some of these students work harder than the majority of those who make large gains and passing grades. Although it is obvious that they do not deserve, or rather that their lot will not be improved (and might be aggravated) by receiving passing grades *in physics,* it is the opinion of a growing number of educators that such students deserve something more constructive and helpful for their time and money than merely a failing grade. It is equally true that society deserves more for the time and money spent on such pupils than the mere stigmatizing of them as 'failures.' The question of what to do for such students can be answered only by careful and long continued experimentation, in which physicists will play their part. An essential part of such experimentation will be a surer identification of such students and a more adequate study of their growth along various lines of development. Growth cannot

be studied without comparable measures; hence the emphasis which the committee has placed on the importance of developing *comparable* tests in physics."

To my mind the information brought out by this study of gains in achievement has greater significance than any other information gathered by the committee. The position of the median at the beginning of the course depends upon the average amount of information in the field of physics possessed by the class at the outset, which in turn depends upon school training, general interest and selection of student material by the college on the basis of school records and marks on entrance examinations. On the other hand, the position of the median at the end of the course depends upon the average ability of the class to acquire and use information in the field of physics, and also upon the effectiveness of the teacher, the soundness of his methods, and to a less extent the adequacy of the equipment at his disposal. Thus in the diagram showing the gains in the test on Light, at the outset the class average in the first college is noticeably below the general pre-study average, but at the end the class average was much higher than the general post-study average. Hence in all probability this class consisted of a group of students who had studied little physics before but who had been well selected upon the basis of ability, and in addition had received good instruction; whereas, although the class average at the outset in the second college is up to the general pre-study average, the gain is so small as to raise the question whether this may be due to faulty selection of students or to poor instruction. If such records were made annually over a period of years, and especially if different instructors taught the class in different years, it should not be a difficult matter to determine correctly to which of these two factors the small gain is due.

The diagnostic value of the information concerning the gain in achievement of *individual students* which this study places in the hands of each participating college is of much importance, as has already been set forth in the report of the committee quoted above. The college should make use of such information in advising the student as to his future course

of study, in awarding scholarships, and in making recommendations to professional schools.

Two results of minor importance which were brought to light by this study are that average scores achieved (1) were approximately the same for different professional goal groups such as engineering, law, medicine; (2) were lower for women than for men on all parts of the test program, a relationship which might easily be reversed if the subject matter had been language or literature instead of science.

"Within both sex groups individual differences are more important than group differences. The superior student, regardless of sex, should be identified, encouraged to continue in subjects for which he displays a particular flair and given special work if such seems desirable to the department head in the light of all relevant data and circumstances. The special encouragement and guidance of those few students who show a special gift for physics is considered a primary obligation and privilege by many teachers of physics. One department head has suggested that it may be a greater contribution to turn out one gifted research scholar than to turn out a hundred 'pass' students each year. But there is no necessary conflict between these two types of contribution. Physics has rich cultural as well as disciplinary and scientific values; special care of the few gifted pupils does not mean that the less gifted pupils need to be neglected or sacrificed on the high standards which are appropriate only to the gifted ones."

The consensus of opinion expressed by the teachers who administered the tests was to the effect that the students liked them better than those of the conventional type. There was a thrill about the competition on a national scale which was found to be very stimulating.

If we attempt to evaluate the results of this testing program, it is essential we should keep in mind that at present our data are very inadequate; hence all conclusions reached can be regarded *only as tentative.* It seems probable, however, that this study has made two definite contributions to the teaching of college physics. The committee has shown (1) that it is possible, through a study of the national percentile ratings, to identify the student who is really superior on a *national basis,* as compared with the student who is apparently

superior only because of his high rank in one small group; (2) that it is possible, through a study of gains in achievement, to identify those students who have marked *ability to learn and to apply* the fundamentals of physics.

Significance. The question then arises: Of what significance is this testing program for guidance in secondary schools? In attempting to answer this question I am sadly handicapped both by lack of experience with other testing programs and by lack of an intimate knowledge of the problems of secondary school teaching. My experience with the former has been limited to a few years' use of Professor Lapp's Iowa tests in physics as well as those just described, and with the latter to contacts with candidates for admission and their school records while I was Dean of Haverford College. In no sense, therefore, can I qualify as an expert either in the field of testing or in that of guidance in secondary schools. However, from my own personal experience I should like to point out one relevant fact, leaving you to judge whether or not mine has been a unique experience. Also from the tentative conclusions reached by the committee in charge of the testing program in physics, I should like to venture a suggestion, leaving you again to judge as to the feasibility of its application to work in the secondary schools.

The fact is this: As a general rule we find that the school record brought to us by each candidate for admission cannot be taken at its face value. If we wish to estimate the probable standing in a given subject of a student in subsequent college work, we find that we have to subtract from 10 per cent to 25 per cent from the grade shown by his school record in that subject. The schools which supply most of our candidates for admission differ a good deal in this respect, and there are some notable exceptions to the general rule. I am forced to admit that the percentage allowance is, in general, more for the public high schools than for the private preparatory schools. In a recent discussion of this matter with the present chairman of our Committee on Admissions, I found that his experience has been identical with mine. The most plausible explanation lies in the fact that a small college can afford to exercise more

care in the selection of its student material than can a large university. Similarly, a private school can select more carefully than a public school. That selection is at least one important factor in achieving success in college work seems to be indicated by an observation made from the data on the college physics tests; namely, in the case of one college where all of the students in the class had had at least high school physics, the correlation of pre-study and post-study test scores was .70, whereas for the entire group the correlation in the test on electricity was .60 and for the other tests only .48 and .49.

This morning, however, we are more interested in finding out whether there are any means by which the secondary schools can furnish their candidates for admission to college with a more reliable record upon which the college can base its judgment. My relevant suggestion is, I think, fairly obvious. Could not the schools, through the general use of adequate tests constructed by an agency outside of the schools, obtain information similar to that which has been gathered from the physics testing program? If carried out, for example, in the field of English, each student could be given a national standing in that subject, and from a pre-test post-test study his gain in achievement could be recorded—both invaluable items when presented for admission to college. I am well aware that there have been various testing programs in the past, and also that there is an agency which attempts to supply information of this character, namely, the College Entrance Examination Board, which has for many years employed the conventional type of examination and more recently the Scholastic Aptitude Test. Just what it is that the latter measures it is perhaps difficult to say, but at our small college we recognize the increasing significance of the national standing acquired by those students who take this test. There are, however, thousands of candidates who apply for admission to colleges and universities without taking any examinations set by the College Board. If to the school records of such students there might be added some measure of achievement on a national scale and some measure of *gain* in achievement

during the school course, the value of the school record to colleges and universities should be greatly increased.

School teachers are likely to protest that after a year's close contact with a student they are capable of forming a judgment of his achievement and his ability to work which is superior to that obtainable from his scores on any tests. To which I can reply: (1) that if it is true that the school record cannot now be taken at its face value, the schools would do well to employ any agency for making these records more valid; (2) that the teacher's judgment, however accurate, can never give the student national standing; (3) that ability to work, as indicated by gain in achievement, is susceptible of actual measurement by means of a pre-test post-test study.

Thus the adoption of better measurement and guidance practices by the secondary schools along the lines indicated by this program of testing in College Physics might result in saving the colleges wasted effort and in saving the students some unnecessary failures in their college courses.

FREDERIC PALMER, JR.,
Haverford College.

The Effect of Systematic Testing on Pupil and Teacher[1]

INTRODUCTION BY DR. BEN D. WOOD

The last item but one on the morning program is one which is similarly of very great interest to all of us here present. During the last decade we shared the anxieties of a great many educational critics regarding the dangers of testing movements and other guidance devices. Many of us have been willing to brave the dangers, on the theory that we cannot escape dangers by merely ignoring them and doing nothing about them. It seems to me very interesting and appropriate that we should have at one of these meetings the report of a school officer who has actually braved these dangers and who has gone through perhaps the most systematic and extensive testing program, including objective tests, of any school in the country. So far as I know, the three schools that constitute the Inquiry Group of the Pennsylvania Study have given more tests than any other schools in the history of the world, so far as I know that history, and if tests could kill the spirit of learning, if they could destroy the souls and intelligences of children, there would be a lot of corpses lying around Dr. Rowland's school and the other two schools that are members of the Inquiry Group of the Pennsylvania Study. So we would like to hear from such a man the results of four or five years of very extensive testing and guidance work.

Dr. Rowland is another who needs no introduction before this group.

ADDRESS BY MR. SYDNEY V. ROWLAND

FOR the past six years, the Radnor High School, located at Wayne, Pennsylvania, together with some twenty other Pennsylvania high schools, large and small, has been participating in a study of the Relations of the Secondary

[1] Presented at the Fourth Annual Meeting of Institutional Members of the Educational Records Bureau, New York, November 2, 1934.

School and College conducted by the Carnegie Foundation and familiar to most of you as the Pennsylvania Study.

The report here presented is based upon our experiences in this study. I have endeavored to state some conclusions that we have agreed upon as resulting from a study of this experience and to present sufficient specific illustrations by way of supporting evidence to justify these conclusions.

It will be necessary, however, first to outline briefly certain essential elements of the undertaking as a background for my illustrative material but not, however, as completely descriptive of the Pennsylvania Study. One of the purposes of the study was to gather, if possible, evidence that might be accepted as serving to identify, earlier and with more assurance, students in the secondary schools who were of college caliber. To this end a cumulative record was compiled for each student in the study which was to present as complete a picture as possible of the student's entire career during the six years of junior-senior high school. You are familiar with these through the report presented at these meetings one year ago by Dr. Learned, Director of the Study.

One of the important sections of this record sets forth the scholastic achievement of the student largely in the form of standardized test scores and great reliance was placed upon these scores as contributing a very significant element in the identification of this veritable college type.

The Pennsylvania Study included also for us at Wayne an opportunity to participate with several other schools in a supplementary project which had as its purpose the development of a special curriculum for a smaller group of students selected on the basis of intellectual ability and opportunity for college education.

This group of students was given a special program of work under a group of teachers who followed them through the entire three years of the Senior High School until they graduated last June. The curriculum provided for some work in each of the broad fields of the social studies, science, and literature throughout the three years and for a variable amount

of work in the languages and mathematics, which variations increased as we approached the senior year. Contact with the fine arts was added rather belatedly toward the close of the tenth year.

This set-up, I must confess, is slightly idealized for sake of brevity. It took three years of mistakes and new beginnings to arrive at this point, and I am describing where we are now rather than what we set out three years ago to do as though armed with a complete set of blue prints and detailed specifications.

To cite the extent of this testing program might seem to suggest that the first effect should be one similar to the sensation of smothering. I do not believe, however, that we at any one time or season were really overwhelmed with tests. They were not given at times too closely associated with the end of the year or the mid-year promotion season. They were not used at all as measures for determination of promotion or failure, and as a result I think that there was little or no anxiety and none of that feverish last minute frenzy of work which too frequently accompanies our "finals." With no idea of promotion or failure or of getting in or out of anything the tests became an old story and a familiar experience that one takes in one's stride—as a nuisance that is soon forgotten in the case of some students or as an intensely interesting adventure to many—a sort of measure of one's growth of a special kind.

In the earlier years there was a strong tendency on the part of teachers to criticise the tests as covering work not taught, or as measuring factual material only, or as omitting much that was thought essential and stressed by the teachers. I think now, however, that we would agree that the tests offer safer evidence of real ability, and particularly that the accumulation of evidence through repeated testings is of vastly greater significance than a similar display of credits earned and marks given, and that therefore, although these tests measure only the accumulation of factual material, they are the best measures of that much of our education.

There is an impartial fairness and a consistency about this

evidence and an opportunity for comparisons that makes it of special value for purposes of college recommendation and guidance to us and, we hope, to admission officers. This feeling, however, developed slowly and out of an atmosphere of distrust which could easily be revived if we were to read into them too great a degree of finality or an omnipotence that their makers would deny.

Accepting this, we are concerned to find ways of recording other equally significant indications of growth in attitudes, standards, strong interests, independent thinking, or in any other phases of development which we think worth striving for.

A little more fundamental to our real problem—the testing program made possible and encouraged *the redirection of educational effort* on the part of both teacher and pupil, not immediately, to be sure, but over a period of years of experience and study. It represented a definite departure from the fifteen credits system.

The tests measured, shall we say, factual mastery of a broad field—much that might have been in the course as taught, much that was in previous courses in this general broad field, but also much that was not so included and more than anyone could hope to include in any course. The tests were not confined even slightly to material that had been taught and was therefore "supposed to be known" as in contrast to "we-did-not-cover-that" sort of material.

There was in the field of literature, science, the social studies no outline of required subject matter for all. There was offered instead a three-year experience in these broad fields that might be infinitely varied, mapped out only in such general terms as man's efforts through science to understand the world about him and in a measure to control it, or an effort to understand this present civilization through a study of the history of the past and of the problems of today or in literature, the things in the whole field of literature (fiction, poetry, essay, biography, drama) which are worth reading and which are of interest to you.

While the testing program was not necessarily the sole

cause of these changes in curriculum, it nevertheless was an important element in the situation which brought them about.

The changes introduced by the new programs varied all the way from a somewhat freer type of reading one day out of four added as a slight concession in the languages to an almost completely individualized program of readings in world literature.

Hitherto, the science for most of our students had been limited in practice to a single year of chemistry or physics or biology—highly specialized but chosen by the student largely for reasons of convenience in scheduling. The new program calls for a general science course developed on the senior high school level from the point of view of a layman's interest in the field, with provision for as much or more specialized work than ever before offered for those who were interested in or seemed to need such an expansion of program.

The tendency in the field of mathematics was to reduce more and more the work for all except two prospective engineers.

Though at the beginning, I think, much of our hesitation in launching such a program and in taking advantage of the freedom offered was due to our fear as teachers that we would lose in thoroughness or in amount of effort, the results seem to suggest that the contrary is true.

The published charts show the relative achievement of two groups of twenty-three students each in the same series of tests. The two groups have spent the last three years in a highly academic program—for the one group that of the regular school; for the other that which has just been described. The group selected for comparison was selected on the basis of ability and was made up largely of those able students who had entered the school some time during the six years following the selection of the first group. Do not think of this in any sense as a control group in any highly technical sense.

The tests used were those given to the sophomores in the Pennsylvania colleges in 1930 and the distribution therefore is on the basis of the achievement of 4,300 college sophomores.

I hesitate somewhat to introduce the comparison because the numbers involved are so small; in each subject field, however, the difference is so striking that it may be accepted as somewhat significant.

Just as the curriculum changed for the teacher or was changed by him, so there was a corresponding *expansion of the conception of education in the minds of the students,* who, on the whole, looked upon the tests as eminently impartial and as acceptable instruments to measure growth in a broad field. To be measured not merely on that which had been received most recently from a teacher who also set the test, but on a large block of organized knowledge regardless of the source and time of its acquisition, seemed to help to develop a driving interest in many that was not characteristic of our work in the past.

Education now included not merely those things which one did in the classroom and in school time but what one did at home, in the library, "on one's own," during the summer. It was something that one got largely by one's own efforts—a continuing process. Teachers were a help, more so than ever, almost fellow-conspirators, as it were. One did not, however, arrange education in units and set it aside in the form of credits toward graduation or rank in marks given by an individual teacher.

I do not mean to imply that genuine intellectual interests so completely dominated these twenty-three boys and girls that they thereafter went about hungering and thirsting after wisdom of all sorts, ardently seeking after any work they might devour, longing only for a chance to educate themselves.

But I do believe that there were developed, after our first bungling efforts and gradually but increasingly through the three years, interests which are of real significance to teachers. These interests, in the cases of some few students, were rather general, but in some were limited to one or several fields at the obvious expense of other departments. We were never able with some individuals to get away from the feeling that the work done was done solely because it was required by us,

but, whenever we found that it was done because the doer thought it worth doing for his own sake, we felt that the education of that youth was on a very much higher plane.

This redirection of effort for both teacher and pupil was primarily toward a *greater concern about what the individual was doing, or was able to do, for himself;* and again I believe it was made possible in large measure through the frequent and very comprehensive testing.

The accumulating evidence of the tests showed with striking clarity interests or abilities or at least fields of outstanding success (or of failure), and increasingly this evidence was used in planning the educational program for the individual. Shortages to be overcome, interests to be encouraged, attainments in skills which warranted release from further drill, areas which seemed to yield richest returns for the individual became matters of concern to teacher and home-room adviser. Students proposed changes in emphasis, asked for opportunities to concentrate more here or there, extended their interests into related fields, and occasionally sought some form of measure for this further effort.

Education as self-education then and *teaching as guidance* seemed implied in the testing program. But there seems also to be implied in this relationship of teacher and student a new element of cooperation and joint planning, rather than the feeling that one had something he must impose upon the other and the corollary that therefore the other would take as little as possible and still avoid any unpleasant consequences. One might sometimes browse around, putter under the friendly eye of a teacher who was ready to help at any time—he was a more friendly soul perhaps since he was no longer a giver of tests or of grades. I do not wish to give the impression that guidance was limited to the academic field, or even that that field is the most important. It is merely the phase that we are discussing.

These interests were spread over all fields, and as far as possible we modified programs to meet every genuine need. A few examples:

Norman was caught with Oriental literature, Anne with

Scandinavian, Carter with German and Bohemian. Most, however, were satisfied to remain somewhat more closely within the field of English and American work. Dan developed no real reading interests whatsoever so far as we could see. But all, with the by no means certain exception of Dan, seemed to have a richer experience than any previous groups if records and observation of a number of teachers may be accepted as evidence.

In the social studies, Clark concentrated on modern affairs; Jimmy on warfare, in all ages—anybody's war. (Do we think warfare the most important phase of history for pupils to concentrate on? No; but Jimmy led so many of his fellows by so much in history that we are willing to assume that the interest was a most profitable one for him.) Anne and her brother became the authorities on international affairs for the group.

Bill and Foster realized that there was a shortage in literary background and spelling and sought help in overcoming this handicap. The program was not followed consistently, but in the case of Foster there was a real gain over the summer that was worthy of note. Foster, discovering an opportunity in engineering at Ann Arbor that was just what he wanted, cleaned up his algebra and plane geometry almost before some of his classmates had started the latter, and in six weeks had mastered, to his satisfaction and that of his teacher, as much solid geometry as she with great labor had "covered" with regular classes in five months. He did it so that he might study trigonometry.

Norman finally balked on French, having already dropped Latin. He wanted the time for science. We had to choose between saying the traditional thing, "It's required, try it again," or really considering his record in French and in science and making a decision, a rather important one to Norman. As a result, Norman's French slumped on the next examination to the lowest percentile of second year students. But his work in science flourished, as is indicated by his record in the Cooperative Tests in physics (85th percentile of students completing a year's work in the subject), biology (90th

percentile), general science (99th percentile), and chemistry (13th percentile). Moreover, Norman thought at the end of his senior year that he would like to see whether his reading in anthropology and his "fooling round," as he put it, in astronomy and zoology was worth measuring. Apparently there was no standard test available in anthropology and none in the other two save one designed for college students who had had a year's work in each field. Norman did as well as 82 per cent of college sophomores who had taken the test in astronomy and as well as 66 per cent of those who had taken the zoology.

To be sure, this is our best sample of individual planning in science, but my point is not that we can do this with a Norman but that we in the past have rarely even recognized him, and too frequently when we do recognize him it is as a very troublesome student in French who is ready to quit and who is really a nuisance, uncomfortable, rebellious, immature, a mischief-maker, "fresh."

Had we judged from the data usually available to us,—that is, on the basis of teachers' marks up to the time when we discarded them,—Norman could not have been certified to college on the basis of the certifying standards now in vogue; he was just a fair student.

In a somewhat similar fashion, though not complicated with a behavior problem, Carter wanted to drop French in his senior year to study Spanish. He was already "learning himself" German—we were not teaching him, at any rate. He did not want to drop French completely, only to stop attending classes; he would go on reading "some." Toward the end of the year he thought that he had better come back to the French for a while, and he again took his place as an acceptable orthodox-for-the-time-being member of the class in full standing. At the close of the year he wanted to know what had happened. In the Cooperative Tests he was as good as 86 per cent of third-year students in French taking that test, as good as 98 per cent of second-year students in German, as good as 88 per cent of second-year students in Spanish.

I do not refer to the creative work done by these students,

because we did not attempt to measure it by any program of testing. I do not mention the fine arts for the same reason, though real ability was discovered in several cases.

Finally, though we admit that these are but a few cases and that they could be duplicated in many schools under the ordinary program, including in some isolated instances our own school, and though we admit that these represent a selected group of rather able students and perhaps seem to prove to you little for the entire student body, we find, nevertheless, that to have done this much for only a few has been a leaven in the school that seems to be leavening the whole lump. As one teacher puts it: "Having done these things with this one group, I find that I cannot just go in the old pattern with the others even if I wanted to."

We have a group of teachers ready, eager to start with a second class, encouraged by a feeling that we are learning to make education more vital and personal with the individual, important because it is something which fits him and which he increasingly recognized as fitting, encouraged also by a feeling that we are working with a clearer understanding of our objectives.

SYDNEY V. ROWLAND,
Superintendent of Schools,
Wayne, Pa.

The Purposes of the Eight-Year Experimental Study[1]

Professor Carl C. Brigham, who presided at the luncheon at which Mr. Aikin was to have been the guest speaker, announced that Mr. Aikin had been suddenly and unavoidably prevented from attending the conference in person and had requested that his paper should be read by Dr. Eugene Randolph Smith, closely associated with him in the work of the Commission on the Relation of School and College.

IN MAY, 1932, a proposal for better coordination of school and college work was submitted to the colleges by the Commission on the Relation of School and College of the Progressive Education Association. This plan, the product of two years of study by the Commission, had been discussed informally in a series of conferences with college presidents, deans and admissions officers.

In brief the plan provides that a small group of secondary schools be set free by the colleges to engage in experimental study of the work of the secondary school, and the colleges agree to accept students from these schools for a period of five years, beginning in 1936, without regard to the course and unit requirements now generally in force for all students and without further examination.

Selection of candidates from these schools will be based, instead, upon the statement of the principal of the school and a carefully recorded history of the student's school life and of his activities and interests, including results of various types of examinations and other evidence of the quality and quantity of the candidate's work, also scores on scholastic

[1] Presented at the Third Educational Conference, New York, November 2, 1934.

aptitude, achievement, and other diagnostic tests given by the schools during the secondary school course.

More than 250 American colleges and universities have given official approval of the plan and assurance of cooperation. Included in the list are leading representatives of all types of institutions of higher learning. We have the cooperation of large universities, both state supported and privately endowed; many of the strong small colleges; women's colleges including all but one of the older eastern colleges for women; and many of the men's colleges, although two or three of the men's colleges which require examinations of all candidates have not yet agreed to waive examinations. All sections of the United States are well represented.

It is obviously necessary that the number of secondary schools included in the study should be limited and that they should be well qualified to lead in the improvement of the work of the secondary school. The selection of the schools and the supervision and guidance of the experiment throughout the eight years proposed for its existence are responsibilities resting upon the directing committee which was set up by the commission two years ago. The membership of the directing committee is as follows:

DIRECTING COMMITTEE

Willard Beatty, Superintendent of Schools, Bronxville, N. Y.

Professor Boyd H. Bode, Ohio State University, Columbus, Ohio.

Dean C. S. Boucher, University of Chicago, Chicago, Ill.

Professor Carl C. Brigham, Princeton University, Princeton, N. J.

Burton P. Fowler, Director, Tower Hill School, Wilmington, Del.

Will French, Superintendent of Schools, Tulsa, Okla.

Dean Herbert E. Hawkes, Columbia University, New York City.

Dean John B. Johnston, University of Minnesota, Minneapolis, Minn.

Dr. Robert Leigh, President, Bennington College, Bennington, Vt.

Dr. John A. Lester, Doylstown, Pa.
Dean Max McConn, Lehigh University, Bethlehem, Pa., Secretary.
Dr. Jesse Newlon, Director, Lincoln School, New York City.
President Marian E. Park, Bryn Mawr College, Bryn Mawr, Pa.
Dr. Eugene R. Smith, Director, Beaver Country Day School, Chestnut Hill, Mass.
Wilford M. Aikin, Director, John Burroughs School, St. Louis County, Mo., Chairman.

This committee sought diligently throughout the country to find strong secondary schools which have demonstrated their ability to prepare students successfully for college under present conditions and are now ready to undertake important studies of their own work for the purpose of enriching and improving the secondary school curriculum and making it more significant and worth while.

THE SCHOOLS CHOSEN

For this purpose approximately 250 schools were suggested by educational leaders in all parts of the United States. From this list the committee has chosen, after careful investigation, the following schools:

High School, Altoona, Pa.
The Baldwin School, Bryn Mawr, Pa.
Beaver Country Day School, Chestnut Hill, Mass.
Bronxville High School, Bronxville, N. Y.
Cheltenham Township High School, Elkins Park, Pa.
Central High School, Tulsa, Okla.
Chicago University High School, Chicago, Ill.
Dalton School, New York City.
Denver High Schools, Denver, Colo.
Eagle Rock High School, Los Angeles, Calif.
Fieldston School, New York City.
Francis Parker School, Chicago, Ill.
Friends' Central School, Overbrook, Pa.
Germantown Friends School, Philadelphia, Pa.
George School, George School, Pa.
Horace Mann School for Girls, New York City.
John Burroughs School, Saint Louis, Mo.

Lincoln School, New York City.
Milton Academy, Milton, Mass.
New Trier Township High School, Winnetka, Ill.
North Shore Country Day School, Winnetka, Ill.
University High School, Oakland, Calif. (not yet officially approved).
Ohio State University Demonstration School, Columbus, O.
Pelham Memorial High School, Pelham, N. Y.
Radnor Township High School, Wayne, Pa.
Roosevelt High School, Des Moines, Iowa.
Shaker High School, Shaker Heights, Ohio.
Tower Hill School, Wilmington, Del.
Winsor School, Boston, Mass.
Wisconsin High School, Madison, Wis.

The committee sought to make the list truly representative of the whole range of American secondary education, and it will be observed that many different types of schools have been selected. There are both large and small public high schools. There are private schools of the "progressive" country-day type, coeducational schools, boarding schools for girls, boarding schools for boys. The group is almost complete. One or two more schools may be added.

During the first two years of the Commission's work there was little financial support. Each member of the Commission or the school which he represented paid his expenses; four of the schools contributed $200 each, but that was all. Beginning in 1932, the Carnegie Corporation of New York, through the Carnegie Foundation for the Advancement of Teaching, generously provided the funds necessary to carry on our work and to make it more effective. Also, we have recently received a liberal grant from the General Education Board for a specific phase of our work which will be described later.

I am glad of this opportunity to present on behalf of the Directing Committee a brief statement of the reasons for this experimental study and to indicate some of its possible outcomes.

Many of us who have been concentrating our efforts upon the secondary school field were not satisfied with the results

of our work. It seemed to us that much of the work had little meaning or significance for large numbers of our students, that they were concerned, not chiefly with learning and understanding, but rather with the collecting of grades, credits, units, and other forms and molds of education instead of entering into the spirit and substance of it. We saw extraordinary changes in the curriculum, methods, and spirit of the elementary school amounting almost to a revolution, and we observed, also, many interesting, important, and stimulating experiments in the colleges, involving curriculum content, organization, and method of procedure. Some changes were taking place in the secondary school, but they seemed to us relatively unimportant.

Theoretically, the secondary school was free to do as it liked with the students not going to college. In many of the large metropolitan high schools more or less adequate provision was being made for their needs. However, it is important to remember that of the five and a half million boys and girls in American secondary schools, approximately four and a half million are in small high schools enrolling 200 or less. In the small school there can be only a limited offering of subjects. That offering is determined to a very large extent by the requirements of the colleges. The needs of the boys and girls in each community who are going to college must be met. The needs of the others, if those needs differ, can seldom be satisfied.

Conscious of the difficulty of providing for the welfare of the non-college pupil, and eager to be of service to him, our Commission, however, has been primarily concerned with the student who goes to college. Neither we nor the colleges have been very well satisfied with the results of his secondary school experience. All too often he comes to college lacking the necessary skills for effective college work. Frequently he is unable to read intelligently or to express himself clearly, concisely, and effectively. He often is unable to investigate a topic, to collect information, to organize data, or to draw warranted conclusions. Many of us were acutely conscious of the need that our candidates should go up to college with

more intellectual zest, greater eagerness to learn, and more vigorous appreciation of the best that college affords.

Some of us have been deeply concerned because of the lack of design or pattern in the student's schooling. Definite purpose and intelligent long-distance planning are seldom found. The eyes of pupils, parents, and teachers have been so fixed upon the college gates that few of them have looked inside the gates to explore the possibilities there and to plan to make intelligent use of them. We have been so concerned with getting our candidates into college that we have, perhaps inevitably drifted into the habit of thinking of that as the chief purpose of the work of the secondary school.

It seemed to us that the student's whole school and college experience should be woven together into a fabric which has unity, plan and design, that there should not be a break in the design at the point of transfer from school to college, and that what he does before and after entering should fit together. This design, we think, should grow out of each student's needs, capacities and interests. That involves a careful, thorough-going study of each pupil and a flexibility of school organization and of school and college cooperation which permits each student's plan to be different, in some respects, from all others, if that seems best for him.

Of course, it is obvious that this design cannot be sharply and rigidly drawn at the beginning of the student's secondary school experience. The pattern must be developed as his purposes become increasingly clear and definite. In the earlier years teachers and parents must share largely in planning; as the student matures, his share should become steadily larger.

Now this point of view implies, among others, these two changes: first, a greater knowledge on the part of the school and college, of the student's real needs, interests, and capacities. We should not only know him better, but we should give more thought to intelligent use of that knowledge in guiding him. Second, it implies a coordination of school and college effort which we have seldom attained. It would be well, we think, for the college to share with the school in studying and guiding the student before he comes to college

and for the school to share with the college in the same way after he is admitted. This seems to require rather significant changes in the traditional way of presenting candidates and in the traditional conception of the functions of the College Admissions Officer or Committee.

To those planning this study it seemed possible, too, for the secondary school to perform better its function of preparation for satisfying and effective participation in community life and for the responsibilities of adulthood. On the one hand, we wanted to provide greater opportunity for discovering, fostering, and developing the individual's capacities for creative living, and on the other hand, to do *our part* and to equip him to do *his part* in the development of a society in which he has a fair chance of living a life satisfying to himself and serviceable to others.

The history of Progressive Education in this and other countries is the record of attempts to discover the real child: to understand him; to foster his best qualities; to create a school environment in which the best that is in him may find happy and satisfying expression. The new schools have placed the emphasis upon living naturally, wholesomely, vigorously, in school. There has been deep concern for discovering, preserving, fostering, the unique individuality of the young human being.

We have sought to promote his health: physical, mental, emotional; to help him to be vividly alive, sensitive, aware; to be eager to know and understand. We have tried to give his creative energies full flow and to establish disciplined habits of work and achievement.

We have said: "We shall stand on the position that nothing good enters into the human world except in and through the free activities of individual men and women, and that educational practice must be shaped to accord with that truth."

But, in recent years, it has been borne in upon us that the individual can seldom become his best self in our modern world. We sometimes succeed in creating in the school a community life whose every aspect promotes growth—full and free development—but when the school community is left

behind, the youth enters a society which makes it impossible, in the vast majority of cases, for him to live his best life. Forces beyond his control thwart and distract him. The growth into his possibilities which is begun in school and which should continue through life is stopped, and the vision by which the youth was attended fades in adulthood into "the light of common day."

Education, therefore, must address itself to the task of creating a human society in which men and women may, by living and sharing in it, continue their own growth and discover new meanings in living. Isn't that the American dream? That, it seems to me, is the democratic way of life.

For all of us who projected this enterprise this purpose is important and for some it is paramount.

As we studied the possibilities of our work in the beginning, it seemed not only that the secondary school could fulfill its preparatory functions more satisfactorily and effectively, but that it is possible to make its work much more significant in meeting the student's present needs in these times more adequately. We were deeply conscious of our failure to help the student to find answers to his immediate questions and to assist him in the solution of his most pressing problems. It seemed that teachers might bring into the classroom and the general life of the school much that would make the school experience more vital and relate the life of the community to the school in more significant ways.

These are some of the considerations which led to this Study. In closing this part of my paper, let me quote from the proposal sent to the colleges two years ago:

"The educational emphasis in this plan is based upon a conviction that the secondary schools must become more effective in helping young people to develop the insight, the powers and the self-direction necessary for resourceful and constructive living. We wish to work toward a type of secondary education which will be flexible, responsive to changing needs, and clearly based upon an understanding of young people as well as an understanding of the qualities needed in adult life.

"We are trying to develop students who regard education as an enduring quest for meanings rather than credit accumula-

tion; who desire to investigate, to follow the leadings of a subject, to explore new fields of thought; knowing how to budget time, to read well, to use sources of knowledge effectively and who are experienced in fulfilling obligations which come with membership in the school or college community."

Doubtless many here today are asking: What innovations are to be found now in the thirty schools? What changes are they making in the hope of achieving better results? Certainly this is not the time for an extended or detailed account of the changes inaugurated in the schools a year ago and now in process of development. Certain types of change, however, begin to emerge and they may be indicated here. When the schools are ready, full and specific reports of their new work will be published. At the risk of misunderstanding because of the necessity for brevity, I venture this statement now.

The schools are effecting changes in the direction of:

1. Greater continuity.
2. Better integration.
3. More vital subject-matter.
4. More satisfactory adaptation to individual capacity, needs and interests.

First: Instead of more or less haphazard collecting of units until a total of fifteen have been acquired, the pupils are being led into continuous experience throughout four and often six years in which skills, ideas, concepts of earlier years are used again and again in new relationships and with new meanings. In these schools the continuity of experience and the unity of design for which some of us hoped are being discovered.

Second: In almost all of the schools there is emphasis upon integration or fusion of subject-matter, where that seems to be profitable. The teachers are attempting to discover relationships between fields of study; to find the unity which exists in the nature of things and then to teach together those things which belong together. It is believed that each field takes on added meaning for the student when he sees the significance of that field in relation to others studied. This involves a breaking-down of some of the barriers which we have erected between subjects and between teachers and it clearly involves

a broadening of each teacher's own point of view, including increased knowledge, understanding, and recognition of the importance of fields related to his own.

Third: All of the schools are attempting to know and understand their students better and to adapt their work more satisfactorily to their needs, interests, and capacities. We all feel the need of help in this very difficult task. It seems to us that we have much to learn about the real needs of our pupils in these days, not only for adequate college preparation, but for satisfying living. We all feel the necessity, too, of assistance in exploring the wide range of genuine interests of boys and girls and in providing adequate means for their satisfaction.

Fourth: All of the schools in this Study are attempting to vitalize their work by changes in organization, methods of teaching and content of curriculum. In the traditional subjects many schools are omitting material that seems of doubtful significance and adding new subject-matter which seems more important. Some of our schools are making extensive use of the community in which they are located, bringing the school and the community close together, guiding their pupils in the study and exploration of their environment and bringing such portions of the outside world as seem desirable into the classroom. In many schools the general student life is rich in experience in community living. Advantage is taken of this to vitalize classes in many fields, especially the social studies. It seems to many that we have been neglecting our greatest opportunity for the development of habits and attitudes of social responsibility and that this opportunity lies at our hand in the school community.

The possible outcomes of this experimental study are indicated by what I have given—the purposes of the members of the Commission which inaugurated this Study, and the developments now taking place in the thirty schools. Recapitulation and summary may be served, however, if I present several results which seem to the members of the Directing Committee to be possible.

One result has already manifested itself in all of the schools.

The challenge which has come to us through participation in this Study has been extraordinarily stimulating to the growth of our teachers. Each school has assumed the responsibility for its own program with whatever help the Directing Committee can provide. We have, perforce, been re-thinking secondary education. The searching of mind and heart which has resulted and which will continue is good for us all. We have been shaken out of our complacency and some have discovered unused capacities for constructive thinking. Happily, there is evidence to indicate that this result has not been confined to the schools included in this Study. The very fact that a group of schools has been set free to undertake this task has been a stimulus to many, who could not be included, to attack this problem, each in his own school and community. A steady stream of letters of inquiry and suggestion from hundreds of school men implies widespread interest in this Study and the improvement of the secondary school.

Of course, no one can tell what the outcomes will be, but some of the following may be realized:

I. We may help in bringing about a more satisfactory relationship between schools and colleges. We have found most of the colleges eager for improvement at that point. There is a desire on the part of college officers to discover more satisfactory ways of bridging the gap between schools and colleges, and of adapting their work, especially in the first two years, to the needs of the students as they come from the schools.

II. We may devise more significant reports to colleges upon the student's secondary school experience and his fitness for college work.

III. There seems to be possibility of development of plans for continued study of the student after he enters college and for evaluation by the college of its own work with him.

IV. It may be demonstrated that the disciplines considered necessary for satisfactory college work can be secured for many through work in fields other than those usually prescribed.

V. We may discover how to prepare the student more adequately for his best work in college and, at the same time,

we may learn how to lead him more wisely, in secondary school, into those fields of study and experience which give meaning and significance to school life now by meeting his present as well as his future needs.

VI. There may be further stimulation of schools and colleges to critical self-study and to constructive changes in materials of instruction, areas of interest and methods of teaching.

VII. We may discover how to achieve greater mastery in learning through the acquisition of such techniques as reading with speed and comprehension, observing accurately, organizing and summarizing information; ability to work with many kinds of materials; capacity to see facts in their relationships; ability to state ideas clearly; techniques essential as a foundation for later advanced study.

VIII. Possibly some of us will find ways of breaking down the barriers which artificially and harmfully separate subjects of study and the work of teachers in various fields, and find ways of making breaches in the walls which have often so separated school from community life as to make school life sterile and relatively insignificant.

IX. We may also gain clearer insight into the importance of the general student life and activity in the school community and how to study and use the school community for experience in the solution of problems of group living.

X. Perhaps we shall be able to make provision for guidance with reference to enlightened citizenship and to further training in college and professional schools. We do not hope to perfect the curriculum or the instrumentalities for guidance. We do hope to make some actual improvements in the work of the participating schools, to cultivate in college and in the public open-mindedness and hospitality toward experiments in secondary school work, and to inaugurate in secondary schools the continuing study of the adaptation of the curriculum to changing times and to the needs of the individual.

I am sure that it need not be said that we who are involved in this Study do not feel that the mantle of the prophet has fallen upon our shoulders, nor do we make the mistake of thinking that the gospel, pure, undefiled and complete has been

miraculously given to us. We have no thought of speaking with the tongues of angels. Our halting speech is that of humble men and women who are seeking honestly and sincerely and with a deep feeling of responsibility to use wisely the opportunity which has come to us.

It is important that any educational project, experimental in nature, should be evaluated as carefully and accurately as possible. It is necessary that each school should have its objectives clearly in mind and the procedures for reaching them well thought through. It is equally necessary that progress toward those objectives should be measured definitely. This is a difficult task under conventional conditions, and especially difficult where new work is being inaugurated. The Directing Committee has recognized the need for the best expert service at this point. For more than two years a Committee on Records and Reports, consisting of school and college representatives under the leadership of Dr. Eugene Smith as chairman, has been at work on this very difficult problem.

Near the beginning of this report I referred to a subvention from the General Education Board supplementary to that which we received from the Carnegie Corporation. That grant made it possible for the Directing Committee to engage Dr. Ralph W. Tyler of the Bureau of Educational Research of Ohio State University and Dr. Oscar K. Buros of Rutgers University to devote a large measure of their time during this year to the task of developing adequate ways of measuring and evaluating the results of our work. We consider ourselves decidedly fortunate in having their cooperation. In company with the chairman of the Commission and Dr. John Lester, who is assisting the schools in their work in English, Dr. Tyler is visiting each of the participating schools, asking for clear, concise, definite, understandable statements of purposes and objectives and then enlisting the cooperation of the teachers in measuring progress towards those ends. He and Dr. Buros, with the assistance of members of the Committee on Records and Reports, are bringing to each school expert knowledge and counsel for which we all feel great need. This

afternoon Dr. Tyler will present to you his point of view in regard to this very important aspect of our work.

We bespeak your sympathetic but critical interest and your generous good will in the task which we have undertaken. Doubtless we shall be disappointed in many of our hopes. We may achieve none of the results which I have indicated. Others which we do not now foresee may become evident, but we feel confident that some of the schools will make significant contributions to the study of secondary education in the United States.

We shall report progress from time to time. We expect to make these reports in such form and with sufficient detail so that other schools may be fully aware of developments. We shall report failures and disappointments along with other results, and we shall attempt to submit clear and objective evidence upon which conclusions may be fairly established.

WILFORD M. AIKIN,
John Burroughs School.

Evaluation: A Challenge and an Opportunity to Progressive Education[1]

INTRODUCTION BY DEAN MAX MCCONN

Mr. Aikin's paper, read at our luncheon meeting by Dr. Smith, gave us a clear and a complete account of the eight-year experiment or project which is being conducted by the Commission on the Relation of School and College of the Progressive Education Association. In connection with many if not all of the major purposes of that experiment, the problem of measurement has arisen, as Mr. Aikin noted, and has become extremely important and also peculiarly difficult, because of the new, experimental curricula and teaching procedures which are being undertaken.

This problem of measurement has been under consideration from the very beginning of the Commission's work. A notable subcommittee, called the Committee on Records and Reports, under the leadership of Dr. Eugene R. Smith, has labored zealously and accomplished much. It has developed the admirable Trait Study with which you are all familiar, and it planned also an elaborate program of aptitude and achievement testing.

And now, beginning with the current year, the Commission has induced our speaker of the afternoon, Dr. R. W. Tyler, of the Ohio State University, to come to the assistance of the Committee on Records and Reports, and to devote a major part of his time to a further intensive attack on this difficult problem of measurement in an experimental situation, on which he will address us.

We all know Dr. Tyler as one of the outstanding men in the field of educational measurement. He has taught at Nebraska, North Carolina, and Chicago, as well as at Ohio

---

[1] Presented at the Third Educational Conference, New York, November 2, 1934.

State, and has served as a statistical consultant or consultant in educational measurement on a number of important studies and surveys. Not only is the Commission fortunate in having him associated with its work, but we this afternoon are fortunate in this opportunity to hear him.

ADDRESS BY PROF. RALPH W. TYLER

PROGRESSIVE education is characterized by devotion to the interests of pupils. It is not a specific plan of educational procedure. There are many varied educational programs developing under the banner of progressive education. However, at least two common elements are present in all schools which call themselves "Progressive." The first is the belief that education needs to be and can be improved, and the second is a willingness to develop and apply a working hypothesis as to the way in which this improvement may be brought about. It is clear that progressive schools are essentially experimental. It should also be apparent that these experiments are varied, both in purposes and in procedures. Among the thirty schools taking part in the Eight-Year Experimental Study of the Progressive Education Association are to be found widely differing plans and programs.

The essential faith upon which this experimental study is undertaken is the belief that freeing schools manned by well-trained staffs provided with ample facilities and motivated by a desire to make secondary education more effective is likely to yield significant results because it gives these staffs the opportunity to utilize their best thought and vision in making educational experiences more fruitful for the pupils in their schools. This philosophy makes evaluation of the work of each progressive school exceedingly important. Since the purpose of the progressive schools is to improve procedures in order to accomplish more desirable educational purposes, it is especially important that every effort which offers promise be evaluated in terms of the purposes for which the program is adopted. Only by this means can we benefit from the experience of the schools taking part in these significant educational

experiments. This evaluation is needed by the school in order to discover the points at which difficulties are encountered so that modifications or revisions may be made and in order to discover the effective aspects of the program which result in noteworthy achievement. The school needs a more comprehensive means of evaluation of the progress of pupils so that counselling and guidance may be more effectively and wisely done.

The parents are in need of satisfactory evaluation because many of them are much concerned about the effect of the school upon their children. They have had to accept through faith the idea that their children are benefiting from their experiences in the school. More and more, these parents are asking for evidence to indicate contributions which the school has made to the welfare of their children. This demand must be met, not only in order to indicate the value of the school program, but also as a means of obtaining the intelligent cooperation of parents in the whole problem. Many of the changes which need to be brought about in boys and girls can only be effectively produced by the intelligent cooperation of parents and school. Evaluation of the work of the school should give parents a picture of the development taking place in their children with an indication of the points at which growth is progressing effectively and other points at which there is need for more intelligent direction of experiences, both in school and at home, in order to obtain the fullest development of the boy or girl.

Those immediately concerned with the work of the school, the staff, pupils and parents, are not the only ones who are vitally concerned in the evaluation of progressive education. Thousands of schools have not the freedom to embark upon radical educational changes, nor the facilities to conduct pioneering experiments. Many people in these schools, however, are concerned with the need for improving education. They have long been looking for suggestions which offer sufficient promise to encourage them to embark upon an improved procedure. They are looking to the experiments in progressive education with the hope that they may find suggestions for

the solutions of their own problems. Too often, however, they find no evidence to indicate the value of the varied programs which are being attempted in the hope of improving education. They find earnest advocates of this program or that; they find heated arguments; but for clear descriptions of these procedures and for impartial evidence of their effectiveness, they look in vain. Those who are fortunate enough to have opportunities for pioneering experiments owe an obligation to the social group to report the results of their experience in as careful, impartial and accurate terms as possible. Only in this way can the educational structure of our whole country benefit from the experience of our pioneers.

These evaluations are not likely to represent indubitable proof of the success or failure of current educational endeavors. They should, however, present evidence, reasonably objective and accurate, which throws additional light upon the value of these experimental programs. Only by the careful collection and consideration of such evidence can we make more intelligent judgments as to the probable worth of proposed school procedures.

I need not emphasize to this group the importance of evaluation as a means of profiting from experiments. The chief problem in the minds of most teachers and administrators is how effective evaluation may be carried on. In the past, the results of educational experiments have commonly been judged in terms of grades or marks received by pupils, in terms of scores made by pupils on standardized tests, in terms of success in college entrance board examinations and other school examinations, or in terms of marks received by students when they are at college. I think it is fair to say that these methods have not given sufficiently complete evidence. Most examinations and teachers' marks measure only a limited aspect of the educational development of boys and girls. They may indicate quite accurately the facts or ideas which the pupil has memorized. They may show the pupil's familiarity with the technical vocabulary of the school subjects in which he has been working. They may indicate the acquisition of such skills as those involved in reading and mathematics. Progres-

sive schools, although interested in these outcomes, are also concerned with other phases of pupil growth. Some schools emphasize the development of desirable attitudes toward various social phenomena. Some schools are concerned with the development of such habits as social responsibility. They are concerned with the development of more discriminating tastes in the selection of reading material and dramatic or artistic productions. They hope to influence and guide the development of abiding interests so that the lives of young people will be fruitful and happy. These are but illustrations of the fact that the purposes of progressive schools include effects upon development of boys and girls which go considerably beyond the kind of behavior ordinarily covered in our usual marking systems. An adequate evaluation of the effectiveness of these progressive schools must furnish evidence as to the progress pupils are making in these various directions. One cannot evaluate the school solely in terms of a very few limited aspects of development.

If we accept the importance of these various purposes or objectives of progressive schools, we must enlarge our concept of evaluation. An adequate evaluation involves the collection of appropriate evidence as to the changes taking place in pupils in the various directions which are important for educational development. This evidence is not limited to that obtained from paper and pencil examinations. It may include records of observations of young people. It may involve the collection of products of their work, records of their reading and of the dramatic and musical productions which they have attended. It should include evidence with reference to all of the purposes which progressive schools are attempting to realize.

This concept makes it apparent that no one uniform program of evaluation can be used in all schools which call themselves progressive. In so far as the purposes of individual schools differ, the plan of evaluation will differ correspondingly. That is to say, an adequate evaluation will indicate the degree to which each school is achieving the purposes which it has set out to accomplish. Evaluation in this way

becomes a responsibility of the individual school and requires a series of individual programs. This clearly necessitates the development of instruments and procedures for getting evidence of the achievement of each of these important purposes so that every school may choose those instruments and those procedures for evaluation which are appropriate for its own purposes. Some schools will want, for example, instruments practicable for them to use which indicate the developing interests of pupils, which show the discrimination pupils are learning to use in the selection of their reading, musical and dramatic experiences, which picture their habitual modes of reaction in social situations, which indicate their developing attitudes toward social problems. We need new instruments to supplement those already perfected for collecting helpful information about the growth and development of young people.

Recognizing this need, the Committee on Reports and Records of the Progressive Education Association's Eight-Year Experimental Study proposed a cooperative program for developing more comprehensive means of evaluation. Through a generous subvention from the General Education Board, the committee was able to begin the program this year. Prof. Oscar K. Buros, on leave of absence from Rutgers University, is devoting full time, and I am devoting part time to assisting the schools in developing more adequate methods of evaluation.

Progressive schools, through cooperative effort, have now an excellent opportunity to develop the needed instruments to improve educational evaluation. These schools have had unusual experience in clarifying their own purposes and objectives. In developing their experimental programs and in their concern for the individuality of their pupils, they have learned to consider not only the intellectual development of children but their social, emotional and physical development. These experiences are of inestimable value in the development of better methods of evaluation.

There are various ways in which this cooperative effort may be directed, but I should like to outline one possible program

which seems, to me, to offer great promise for making evaluation more adequate. The first step, which serves to direct the effort of the work, is for each school to formulate in a clear and understandable fashion the purposes or objectives which it is trying to realize. This proceeds on the assumption that education is a means of bringing about changes in young people and that these purposes or objectives represent a statement of the kinds of changes in its pupils which the school hopes it may help to bring about. These purposes or objectives will indicate the variety of aspects of pupil development which needs to be considered in a satisfactory program of evaluation. This statement of purposes will probably include statements of certain understandings to be developed, certain attitudes to be acquired, certain skills and habits to be realized. Taken together, they should represent major, important changes in young people toward which the effort of the school is directed.

The second step in this proposed procedure is for the staff of the school to go through the list of purposes or objectives and indicate after each objective any methods which it thinks practicable for obtaining evidence of the degree to which this purpose is being realized. In making this notation three kinds of statements are possible. The staff may state that valid evidence about the attainment of this purpose is already being gathered by means of some particular procedure. For example, a school which includes among its purposes the development of facility in rapid silent reading might state after this objective that evidence could be obtained through the use of the Iowa Silent Reading Test and that this was already a part of the plan of evaluation in the school. In the case of certain other objectives, the staff might be able to indicate ways of getting this evidence which are practicable and can be immediately followed, but which had not heretofore been a part of the school program for evaluation. For example, one of the purposes of the literature course may be to develop discriminating taste in the selection of reading materials. The staff might indicate after this purpose that such evidence could be obtained by having pupils in the school keep a reading diary

which would indicate what books or magazine articles were read and in connection with each selection read, the pupil would be asked to indicate his own reaction to it; i.e., whether or not he liked the selection. There will be a third group of objectives or purposes after which the staff will probably put question marks indicating that they do not know any practicable methods which can be used in the school for collecting evidence about the attainment of these purposes. We might expect to find such question marks after objectives concerned with the development of certain attitudes, habits, or interests or with the acquisition of methods of reflective thinking. The points where question marks have been entered indicate the kinds of evidence which are needed for satisfactory evaluation, for which we do not now have practicable instruments. Undoubtedly, there will be certain kinds of evidence needed by several schools. A dozen schools perhaps might be concerned with ways of determining the degree to which their pupils were developing the habit of assuming responsibility in the social group. Many schools may be concerned with the development of a scientific attitude; that is, a tendency to look for evidence with reference to an important problem rather than jumping to an immediate conclusion. At these points where there are common needs for practicable methods of obtaining evidence of pupil progress, we can organize a cooperative attack upon the common problems. A committee of interested teachers, for example, may be working upon methods for determining the development of the habit of social responsibility; another committee may be concerned with means for discovering growth in social attitudes; a third committee, with methods for determining pupil interests. Each committee will be attacking an important problem in the development of instruments for evaluating progressive education.

At this point, the question of the practicability of this cooperative attack may be raised. What hope is there that this attempt to develop new instruments will be fruitful? The experience during the past six years by such institutions as the Ohio State University and the Rochester Athenaeum and Me-

chanics' Institute indicates clearly that many of the areas which are now called intangible and incapable of evaluation can be appraised and that this appraisal can become more and more accurate and valuable. The first problem is to get some evidence with reference to these so-called intangible objectives. A later problem is to refine this evidence and make it more exact. There is no use to attack the second problem first. We cannot develop refined measures until we have first devised ways of collecting some objective evidence, even though it is crude. One reason for believing that a cooperative attack is likely to be fruitful is that a clarification of educational purposes, stated in terms of changes which we hope will take place in boys and girls, directs the attention of the teacher and parent in a way that makes intangible changes more and more tangible. That is, clarifying our own purposes makes it more easily possible to recognize the desired changes in young people when they are evidenced. Another reason for hope that practicable methods may be developed is due to the possibility of sampling. By a careful study of boys and girls and a record of their behavior in a variety of situations, it is often possible to discover a few indicative situations in which one may get a very clear picture of the development of that boy or girl without having to study him in all the possible situations of life. Binet, for example, in devising a test of the general mental development of young children, found certain situations which he used that were especially indicative of the mental reactions of children in a wide variety of life situations. As a part of the cooperative attempt to develop needed instruments we shall make some careful studies in an effort to locate indicative situations which would enable us to judge the changes taking place in boys and girls without having to follow them around with camera, dictaphone or notebook all day long.

A third reason for believing in the value of this attack in developing new measures is due to the possibility of indexes of change in people. In many cases we have found certain changes in students which are very difficult to measure directly, which can be appraised rather accurately through other types

of behavior which have been found to serve as satisfactory indexes. We are, of course, familiar with the use of an index in physical measurement. Ordinarily, we do not measure the temperature of the air in this room by direct measurement. To do so would require the determination of the average mass of the molecules of air and their average velocity. Instead, we use a thermometer. A thermometer does not measure temperature directly. It measures the amount of expansion of a column of liquid. The thermometer can be used as a valid index of temperature because it has been found again and again that there is a high correlation between the change of temperature in the air in a room and the expansion of the liquid in the bulb of the thermometer. In this cooperative study we shall be looking for and trying out promising indexes of educational development which may not in themselves be the purposes of an educational program but which we may find are very highly related to desirable purposes which are difficult or impracticable to measure directly. A fourth factor which gives promise for the success of this program is the fact that a clearer understanding of the changes in young people which are significant educationally enables the school to secure wider assistance in obtaining information about these changes. At the John Burroughs School, for example, parents have cooperated in reporting information about pupils of value in making educational endeavors more effective. Rochester Mechanics Institute receives similar cooperation from stores and industries employing students in the community. Playground supervisors and city librarians are potential collectors of helpful data. Cooperatively, we may get a much more comprehensive and helpful picture of the growth and development of boys and girls in the schools.

Through the clarification of objectives, through the careful study of boys and girls in terms of these objectives, through the search for indicative behavior, through the trial of indexes, through wider community cooperation, I think it is very possible to continue to extend our instruments of evaluation so that more and more of the important changes in young people will be recorded. During the coming year, it should be pos-

sible to develop instruments appropriate for at least four or five major purposes, for which we do not now have practicable means of measurement. Each succeeding year might well result in similar expansion of our facilities for evaluation. This development of new instruments is possible and of tremendous significance. It is not a technical problem alone. The continuing improvement of progressive education depends upon the development of means for evaluating each promising effort of progressive schools in terms of its major important purposes.

RALPH W. TYLER,
Ohio State University.

Training Teachers for Guidance[1]

Introduction by Dean J. B. Johnston

Ladies and gentlemen, I am only pinch-hitting here tonight, and you will all be very sorry to learn that Dean Hawkes, who was to have been chairman of this meeting, is not very well and could not come this evening. We shall miss his genial and happy expressions.

I have not been asked to say this, but I would like to have the opportunity to express my feeling of joy, if I can put it that way, at the presence of so many persons as we have seen here in these two days from widely separated parts of the country, dealing with and discussing the most important problems of education. They are problems and they will continue to be problems for a long time to come, but the hopeful thing is that as we work at them we make a little progress day by day. I think there is a new point of view, a new attitude, that has come into our educational world within a decade or so. I think it could be expressed by paraphrasing a well-known saying. If we were all fully convinced, as I think most of those who attend these conferences are, that the schools were made for the children and not the children for the schools; if everyone interested in education, including the parents of children, were at once to become aware or convinced of that fact, we should have very much better schools, very much better results coming from our schools and a very much better social condition throughout.

This evening we are to hear from a speaker who will deal with one of the important considerations in the improvement of our education. The speaker has had long experience and a fruitful one in the schools of this city. He is now at the head of the largest institution of its kind in the world (although this is not California!), the largest women's college in the

[1] Presented at the Third Educational Conference, New York, November 2, 1934.

world and the college which has had the opportunity in the past, and presumably will have for many years to come, of training the teachers for this great metropolitan area. After all, our educational problems are to be solved largely by the teachers, and the progress we make, the rate of speed in solving these problems, is going to depend very much on the type of training given to the teachers. In a way that is a key to the situation. There are many other keys to be found in the principles of new conditions that are being developed. I suppose each person present has a key to the situation, and that certainly is one of the critical points.

It gives me great pleasure to introduce, then, Dr. Colligan, President of Hunter College, who will speak on "Training Teachers for Guidance."

ADDRESS BY DR. EUGENE A. COLLIGAN

TO ALL who are interested in that sine qua non of effective, present-day education—common-sense procedure to realize a sound philosophy of education in practice—some valuable and timely recent contributions concerning proper testing and guidance are commended. In 1932 Dr. John M. Brewer of Harvard University presented his stimulating and valuable work entitled Education as Guidance. In January, 1934, Dr. William S. Learned, of The Carnegie Foundation for the Advancement of Teaching, at the meeting of the Association of American Colleges delivered an address entitled "Testing for Values in Education." He very definitely showed some real values in education and the way to "search for values" therein. In February, 1933, Dr. Ben D. Wood, of Columbia University and our Educational Records Bureau and The Cooperative Test Service, in a penetrating address before a meeting of the National Education Association in Minneapolis entitled "Basic Considerations in Educational Testing," revealed the emptiness and utter futility for many human beings of that lock-step regimentation and hit-or-miss contacting of young people with the wisdom and culture which are our educational faculties. Truly must education be made

of sterner and more common-sense stuff. Ascertainment of individual capacity and adaptation of school procedures to individual needs must obtain. For the April, 1934, issue of the periodical *Occupations,* Dr. Wood wrote an article, "The Major Strategy of Guidance" which, by pointing the road for guidance, is bound to become educational prophecy rather than necessary iconoclasm.

This is the plan of my address. First, we must understand the nature and meaning of guidance. Secondly, we must set forth a sound philosophy of education. Thus shall we show that education properly conceived is guidance. Thirdly, since we knew "what is good to do" we shall explain the actual operation of a college and teacher training institution in which we aim to realize sound theory in actual practice.

A definition of the terms of a topic set for discussion is essential. Will the dictionary help us?

Training implies teaching and forming by practice. Teachers are those whose business it is to instruct others. To instruct is to impart information, direction and command. Some teachers are educators. Educators bring out, develop, cultivate and guide the powers of the individual. Guidance connotes superintendence, assistance and direction in training and education. Education will not mean merely subject learning and the passing of tests in subject matter. Rather it will mean the development of individuals with various patterns of abilities by means of various curricula both *through* self-direction and *for* self-direction, to the end that the application of these abilities will be individually and socially effective. How shall we help human beings to formulate and accomplish for themselves objectives which to them are worth-while, and which for them are reasonable of achievement? How can we organize all of the activities of the school to ascertain individual capacities and satisfy individual needs, so that we may properly integrate the individual with a complex and changing society? If we answer these questions, we establish that guidance which ultimately will make the individual self-guiding. Thus shall educators—not mere instructors—"enrich the school as an institution in which to live a life." We must

agree with Dr. Brewer that the primary function of education and educators is to guide young people in living—to aid pupils in improving, extending and organizing their individual and cooperative activities. To learn to live one's daily life well is of real importance. Any curriculum which neglects practice in living is quite incomplete. Pupil self-activity in formulating judgments as a result of race and individual experience is essential in the practice of the art of living for all pupils if we accord, as we must, with Dean Johnston's view that "Society will hold its institutions responsible for training those of moderate ability for useful citizenship." Unless an educational institution helps to develop a more efficient society, it has no valid reason for existence at public expense. In this world oppressed by post-war problems of economic and industrial relations, by problems of increasing armaments for war, by threats of social and political disintegration and decay, by lapses in that morality upon which civic virtue must be based, we hear from every side that only through education may the solution be achieved.

The record of man's culture revealed by our institutions of learning should be a lamp of experience to guide the faltering feet of our modern world, teaching us how things have come to be as they are; telling what errors have been made and what resulting miseries endured; how, wilfully or through ignorance, we repeat the blunders of former generations, stupidly insisting that we must learn only through our own painful experience. Education must aim at something more than merely filling bright minds and retentive memories with those things which a cultured person is supposed to know and to learn from our custodians of learning.

Educators must answer frankly such questions as these: What is it we seek to do? Why do we seek to do it? How shall we do it? How shall we know when we have done it? Education in a democracy must actualize the potentialities of the individual in consonance with and for the proper development of a continuously progressing society.

The individual came before society. Individuals made the family and society. Individuals in society made the state to

protect them as individuals in their enjoyment of natural rights to life, liberty and happiness. Unless we emphasize the importance of the individual, how shall we safeguard for him the chance for expression of those desires and aspirations which are purely personal and, as such, give meaning to life and increase human happiness? Unless we can effect changes in the individuals who constitute a society, how can we improve that society? Students come to us to be helped as individuals and not to be penalized because they do not and cannot conform to a common pattern. Many may, but many others cannot conform. All are possessed of some capability, are endowed with some talent. This capacity, this talent, we must ascertain and develop for the sake of the individual and of society. Thus we shall avoid social and economic waste and disordered or ruined lives. Even as a sculptor chipping away the superfluous reveals his concept of a beautiful image hidden in a block of marble, so also may modern education uncover the philosopher, the saint, the hero, the sage, the just being, who lie concealed among those not ordinarily discovered by other educational techniques.

In developing individuals for effective social usefulness education makes its field of triumph. When education, so conceived, produces a citizenry trained to think things through independently and honestly and to address itself with courage and intelligence to the wise solution of those problems of complex economic and political life which beset us, the money spent for education represents a prudent social investment.

The proper development of the individual student necessitates sound guidance, adequately arranged and consistently applied. Even as the medical profession developed the thermometer and the stethoscope, bacteriological examinations and blood-counts, so also has the teaching profession developed and refined standardized objective measurement tests and the cumulative record card, or case history of the student, as basic aids in diagnosis and treatment of individual difficulties. By these means each student may be placed under continuous constructive observation to make possible better individual school adjustments. Ten years ago my friend, Dr. Ben D.

Wood, urged the adoption of the cumulative record card in schools and colleges. Real advance has resulted.

The movement, fostered by the Committees on Personnel Methods and College Testing of the American Council on Education, with the Educational Records Bureau and the Co-operative Test Service, urges us to measure and study individual differences in students and to ascertain what these differences mean in terms of curriculum, teaching methods and aspirations of individual students. Resulting educational guidance will indicate long-term provisional goals for individual pupils and the progressive modification of these goals in accordance with cumulative evidences of growth and of needs—intellectual, social and personal.

Coercion in education without reference to individual capacity is both dangerous and wasteful. Proper and systematic objective testing, revealing pupil differences, will compel sensible educators in our democratized mass education program to make curriculum and methodological readjustments to assure pupil self-realization. Thus shall we liberate students from efforts foredoomed to failure and provide activities appropriate to individual capacities, interests and needs.

The existing curricular status quo is not essentially sacred in this dynamic age, nor can it be so regarded if we would eliminate present financial and social waste. The main point of all educational reform is to find and serve individual pupil capacity. Only on this basis, in a democracy which promises equality of opportunity, can educational standards and curricula have meaning and validity. Our problem lies not in the adjustment of the pupil to the school but in the adjustment of the school to the student. Therefore, capacities, achievements, interests and needs of growing individuals, considered in due relation to the needs and opportunities of society, must become the basis of school-to-student adjustment as well as of curriculum reorganization. Our present economic and social crisis makes these the basic problems in American education.

Sound theory should be realized in sane practice. "If to do were as easy as to know what were good to do," educa-

tional institutions would become laboratories of right doing. We hold as sound doctrine that pupils learn not only by instruction in the crystallized experience of the race, but also by observation and practice, and without doubt they learn to do by doing. Therefore, because Hunter College has in the past and will in the future be called upon to provide well-trained teachers for our New York City schools, the college established a program of educational guidance to which every activity of the institution is related.

Hunter College, too, has developed its cumulative record card and testing program in its Educational Guidance Bureau. This has achieved a measure of success in its clinic for diagnosis and remedial treatment of student failure and in its development of improved pupil technique in study. Consciously we shall ascertain and develop the potentialities of individual students for their own benefit and that of society "with a minimum of present fumbling and waste."

During the past year faculty, staff and student-body, as partners in this educational enterprise, have cooperated in curriculum research, construction and control to produce interesting suggestions and sensible readjustments. Social needs have been studied to determine wherein we can be of most service in making it possible for our students not only to live happy and useful lives with reasonable economic success but also to become contributors to social betterment. We have emphasized education not only for culture's sake but also for specific vocations and particular fields or areas of vocational endeavor. We emphasize the vocational outcomes of all subjects in the curriculum without sacrificing those effects in stimulating and training straight thinking and in broadening the intellectual outlook afforded by the liberal arts program. Attention has been directed to provision for the development of certain technical skills of vocational value, which are outgrowths or accompaniments of the program of studies.

Furthermore, the development of good character and pleasing personality as well as of intellectual aptitude is encouraged in a positive program of training in good college citizenship directed by our Dean. In their study of our college traditions,

the students have had the encouraging cooperation of our splendid Associate Alumnae, who have also encouraged the use of Lenox Hill Settlement House as a laboratory for the training of some students who will build careers in welfare work.

By such methods and in extra-curricular activities, youth, which wishes to carry responsibility and to see results, has been served.

Dr. Ben Wood says, "Guidance is a philosophy, not a dull bookkeeping. It lies at the very taproot of education."

Professor Morrison tells us: "Teachers should spend half their time studying their pupils as individuals, and the rest of their time doing what that study shows to be desirable and necessary."

"To be effective guidance must become, at least in its fundamental philosophy and broad administrative implications, the corner-stone of the professional education of teachers rather than a technical specialty to which only a small fraction of teachers-in-training are normally exposed. Orientation toward guidance as a philosophy must come from within," says good Dr. Wood.

These truths Hunter College believes. Not only does it believe. It seeks to realize them in actual practice and now makes training in and for guidance a required part of the program of its teacher-training work. We have no department conflicts. The work is directed, not dominated, by our Department of Education. Serving with it, as active partners in this all-important enterprise, are representatives of all departments. We have by no means reached the blissful state of perfection to which we aspire. We are conscious of our shortcomings. But we have traveled some distance toward our goal.

To help the student coherently, we are assembling not only the data of high school grades, extra-curricular activities, employment experience, scores on standardized tests administered to all Freshmen, but we have also initiated a plan of pre-registration counseling for Freshmen, a basic objective of which is to allow them early in the college course, where it

seems to their advantage, to plan exploratory programs which will enable them to sample various curriculum fields.

In September, 1934, we conducted a Freshman Week program combining group lectures and individual conferences designed, first, to lay the curriculum offering before the entering students in a manner intelligible to them, and secondly, to enable them to select courses and arrange programs after individual conferences with the departmental advisers and educational counselors. These were combined with all the information that can be elicited in no other way so effectively as in a personal interview conducted by an experienced counselor, the data concerning high school standing and standing on college Freshman tests, and facts secured from personal information blanks filled out several months before on application for admission. During this week a consistent effort was made to have the student plan primarily on the basis of her own interests and aptitudes rather than in terms of a specific and remote vocational objective. We maintain in the college a Faculty Committee on Vocational Guidance which makes valuable contributions to the field of vocational information, publishing a "What To Do in the World's Work" booklet organizing vocational opportunities around the several curriculum fields. The chairman of this committee and the chairman of the Bureau of Educational Guidance are agreed that, during the early part of Freshman orientation, too much care cannot be exercised to keep the vocational motif in the background. Therefore, unlike many of the Freshman Week plans that we have examined, we do not give any conspicuous place to the topic of vocational choice. This is done late in the Freshman year and again, of course, in the succeeding college years. To feature this subject unduly at the very outset of the college course tends to make young people rush into ill-advised selections chosen for no other reason than the objective advantages of the particular vocation without any true relation to the important subjective complement—their own abilities, training and interests.

As far as possible, we insist that the ultimate choice and decisions must be made by the student. We are definitely

committed to the belief that we must help these young women to grow in the power of self-direction, and such growth is possible only through practice.

Here we are often faced by a serious obstacle in the parent's attitude. Frequently a student chooses a course because her parents (one or both) command it. In some cases there is an ultimatum such as: "Either you take such-and-such a course or you don't go to college at all." Sometimes this attitude is related to the parent's own idea of what should constitute a college education. This idea may be wholly out-dated. It may be derived from a European system based on a philosophy wholly unrelated to our American society and government. The problem of guidance widens out, therefore, considerably beyond the student into the family group.

Our college is committed to the philosophy of educational guidance at its sanest. Hunter College in particular through its extensive teacher-training program can render a service that no other unit can. In our colleges today we are educating a great number of the parents of the next generation of college students. Without the intelligent cooperation of the parents of our students, without their confidence in the sincerity of our guidance program and the reasonableness of our altruistic endeavors for the young people in our institutions, we cannot carry on with the fullest measure of success. At present, we must endeavor through lectures to parent-teacher associations and other intelligent community groups to win supporters for our guidance programs which are, of necessity, expensive to administer. But for the future, would it not be better to have in our communities parents and teachers already won to the cause because they themselves have experienced the plan in action and benefited by its administration? We believe the colleges should, in this respect, lay a better foundation for the future.

Besides this, Hunter College, which has throughout its history contributed to the teaching and administrative school personnel in this city on a large scale, has an unusual opportunity for training teachers who, in the home room situation, and perhaps later in the specialized guidance office, can carry

forward to success a guidance program which will take the child through a unified system of educational experiences distributed over several years and even several schools.

Besides themselves being the subjects of our own collegiate program of educational, social and vocational guidance, our students now have the opportunity of pursuing courses in measurement in educational guidance, principles and practices in personnel work, clerical procedures in guidance and other allied subjects. The New York Board of Education and the New York State Department continue to hold to the dual requirements for the expert guidance counselor in our schools; i. e., teaching experience and personnel training and practice (and this seems to be an eminently sane combination). Our own institution offers the theoretical courses and the actual practices which will acquaint the prospective worker not merely with the underlying principles but with the "fait accompli."

What is Hunter College doing to provide prospective teachers with such knowledge and training? First, it offers basic courses in theory necessary to broaden the teacher's outlook beyond the mere business of acquiring the best methods of imparting the subject-matter of already defined curricula. Among these courses in theory are: Psychology and Training of Exceptional Children; Mental Hygiene; Theory and Practice of Intelligence, Educational and Guidance Testing; Diagnostic Testing and Remedial Teaching; Clinic for Educational Guidance. Secondly, it provides opportunity both to observe experts in the technique eventuating from the theories and to begin themselves to practice under competent direction and supervision. To this end we maintain a "clinic in Mental Testing and Educational Guidance" to which children are brought for examination, diagnosis and prognosis. Here, unobserved by the children because of the device of the one-way screen, students are present at an actual clinic—not one staged merely for demonstration purposes. This clinical observation is conducted concurrently with their own readings and group discussions with the psychologist in charge of the clinic. They learn what the plan is for adjusting the particular child in home or

school relationships or both, and they are informed, from time to time, concerning the follow-up. These students have, themselves, frequently brought to the clinic cases from their own families or friends. Sometimes the plan of action worked out requires one or more of the students of the class to participate in some special service that is needed for the child, thus providing experience in field work.

Another form of experience, in the actual setting of the school, is provided for students in our classes in "Diagnostic Testing and Remedial Teaching." This course requires as a base a course in "Tests and Measurements." Concurrently with the class meetings at the college, both students and teachers go to neighboring schools where—working out some problem presented by the principal or suggested by the college instructor—a testing program is conducted. Scoring and interpretation are the students' task. Diagnoses of cases that deviate markedly are worked out in the class group, remedial procedures are discussed and remedial plans are finally made and executed by the several individuals of the group.

All these are courses and practices by which anyone planning to enter a teaching career may better prepare for it.

Besides this opportunity for teachers in general, we are building up in Hunter College, both in undergraduate and in postgraduate work, a carefully integrated, specialized training for personnel workers, both in education and in industry. To the courses already described there are added others more specifically organized toward preparation for guidance or personnel work. These include courses in Fundamental Principles of Personnel Work; Principles of Vocational Guidance; Measurement in Guidance; Methods of Educational and Vocational Guidance; and Personnel Work in Industry. Clinical courses, such as those previously described, are of course absolutely essential to lift the program from the purely theoretical into the realm of the actual.

Furthermore, to re-orient teachers now in service we offer in our extension service groupings of courses which will definitely train in and for guidance—educational, vocational and social. These have been brought to the attention of

teachers and administrators in our New York City school system in order that we properly may cooperate with that dynamic and understanding Superintendent of Schools, Dr. Harold G. Campbell, who has expressed the desire to make guidance the keystone of the arch in the basic educational philosophy of his administration of the New York City school system, which ministers to the needs of a million and a quarter children.

As well, our groupings of essential studies and practices for guidance will provide both for prospective teachers and teachers now in service the opportunity to qualify for the special fields in guidance now in existence and in process of set-up by New York State and New York City educational authorities.

Through constantly growing appreciation of the worth of individuals as such, through testing individual capacity and achievement as a basis for counselling and guidance, not as a fetish, and through the realization that we can best achieve individual happiness in that social usefulness by which each preserves for himself when he promotes for all the protection of life, liberty and happiness, we shall strive to perform our task with the sincerity of honest purpose.

EUGENE A. COLLIGAN,
Hunter College.